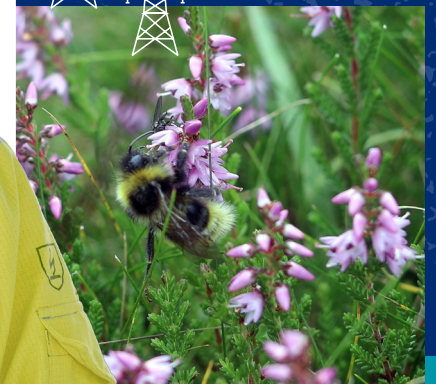


# Annual Sustainability Report

2024/25



# A year in highlights 2024/25



## Climate

### Powering 13.7 million homes

By the end of 2024/25 our connections transmitted enough renewable energy to power 13.7 million homes – 1.4 million more than last year and well beyond our T2 commitment of 10 million. This capacity helped displace 7.66 million tCO<sub>2</sub>e over the year.

### Industry-leading IIG emissions reduction

This year we cut emissions from insulation and interruption gases (IIG) by 10% compared to our baseline. Our best year ever for SF<sub>6</sub> performance, we achieved both our lowest leakage rate (0.10%) and the lowest absolute leakage since 2018/19. This industry-leading result sets us apart from peers and reflects our targeted approach to eliminating process-driven leaks, driving progress toward our Scope 1 emissions goals.

### Cutting operational carbon: Scopes 1 & 2

2024/25 saw our lowest Scope 1 and 2 emissions, and a 13% reduction since 2023/24. We have now cut Scope 1 and 2 emissions by 19% from our base year.

### Reducing transmission losses

We have reduced emissions from transmission losses by 69% since our 2018/19 baseline reaching a record low of 0.038 kgCO<sub>2</sub>/kWh in emissions intensity.

### Accelerating low carbon growth

We connected 1.6 GW of new low carbon generation to our network, the largest annual increase since the start of the T2 price control period. This brings the low carbon share of generation on our network to 89%, powering the UK's clean energy transition and supporting economic growth through reliable, renewable power.



## Nature

### Going further on Biodiversity Net Gain

We have exceeded our goal of 10% Biodiversity Net Gain through on- and off-site biodiversity enhancements, ensuring that we leave a positive impact for nature across our operational areas.

### Partnering for nature recovery

We have partnered with SCOTLAND: The Big Picture, a charity dedicated to advancing rewilding as a solution to the climate and biodiversity crises, to support the Northwoods Rewilding Network and other collaborative projects. Their expertise in nature restoration and Biodiversity Net Gain strengthens our environmental ambitions and helps us deliver meaningful outcomes for Scotland's natural landscape.

### Restoring habitats with RSPB Scotland

We are working with RSPB Scotland to enhance biodiversity and restore habitats at Inversnaid Nature Reserve in Loch Lomond and the Trossachs National Park. This partnership brings critical ecological expertise to our restoration efforts within our license area, helping us protect and enrich Scotland's natural heritage.





# A year in highlights 2024/25



## Communities

### Delivering community benefits without delay

We launched our first-ever Community Benefit Funds, delivering direct financial support to communities hosting our infrastructure. We chose to act ahead of government guidance, ensuring benefits reached communities without delay. Through the Regional and Local Funds, we awarded over £2 million to 10 regional and 63 local projects, demonstrating our commitment to putting communities at the heart of the energy transition.

### Delivering a housing legacy

A number of partnerships are in development to deliver our sector-leading Housing Strategy for our Pathway to 2030 projects. Initial work to deliver a range of accommodation solutions including new builds and refurbishments is underway.



## Procurement

### Raising the bar on contractor sustainability

We have embedded enhanced sustainability requirements into contracts for all large capital projects. Contractors must now develop management plans and report on performance across carbon, waste, and social value. This gives us greater visibility, helps identify best practices, and ensures we maximise sustainability opportunities while minimising risks.

### Supplier Science-Based Targets (SBTs)

We surpassed our target of our suppliers setting SBTs. 74% of our suppliers now have SBTs, exceeding our goal of two-thirds and strengthening our long-term Scope 3 emissions strategy.



## People

### Strategic workforce expansion

Strategic workforce expansion: We welcomed over 500 new employees in 2024/25, with further growth on the horizon. Our Strategic Workforce Plan and Planning Tool are guiding this expansion, creating green jobs and delivering socioeconomic benefits across the north of Scotland.

### Pioneering psychological safety

ISO 45003 Certified: SSEN Transmission became the first energy sector business to achieve certification to ISO 45003 - the world's leading standard for psychological health and safety at work. Throughout 2024/25, Health & Wellbeing team developed and enhanced systems, policies and procedures to support mental wellbeing across the organisation. This landmark certification recognises our commitment to creating a psychologically safe and supportive workplace.



## Performance

### Driving the transition through innovation

Our innovation projects aim to support our infrastructure development, with initiatives to monitor pollution and trial low profile designs for our assets.

### Building a legacy of prosperity

In December 2024 we submitted our RIIO-T3 Business Plan to Ofgem, outlining our vision for 2026-2031. Over this period, we will deliver Scotland's largest-ever infrastructure investment, creating £18.5bn in gross value added for the UK, including £8bn the north of Scotland. This will generate up to 37,000 UK jobs, with 17,500 in Scotland, and 8,400 in the north, leaving a lasting legacy of prosperity and progress.

# Foreword: Delivering sustainable transmission for the north of Scotland

I am proud to present SSEN Transmission's Sustainability Report for 2024/25. This year is defined by significant progress and powerful partnerships, driven by the dedication of our people, supply chain, and stakeholders. We are grateful for the active participation of our local communities and look forward to working together on projects of national impact, such as new network infrastructure as well as initiatives at a local level, such as our ambitious Housing Strategy.

**Our role is clear: to plan, build, operate, and maintain the transmission infrastructure that will enable the UK and Scotland to achieve their energy security and clean power targets.**

In doing so, we are committed to delivering this sustainably and leaving a lasting positive legacy. Over the past year, we've accelerated our sustainability journey across our six focus areas: Climate; Nature; Communities; Procurement; People; and Performance. We've delivered on our RIIO-T2 commitments and laid strong foundations for a successful RIIO-T3.

On climate, we delivered sector leading performance. Despite significant network growth, we had our best ever year for carbon emissions reductions, thanks in large part to our teams' exceptional work tackling SF<sub>6</sub> leakages. Additionally, the greenhouse gas emissions from transmission losses decreased yet again, driven in part by the record 1.6 GW of low-carbon generation connected to our network this year. While transport emissions have risen year-on-year, we are actively working to decouple business growth from emissions through fleet electrification and smarter transport choices.

On nature, we continued to prioritise positive impacts on biodiversity and the local environment. We delivered Biodiversity Net Gain (BNG) on all our consented projects and surpassed our BNG target. Beyond BNG, we continued to enhance the environment we work in, completing eight enhancement projects, from native woodland planting and vegetation management to shoreline clean-ups. We also launched major partnerships with RSPB Scotland and SCOTLAND: The Big Picture, strengthening our commitment to nature restoration and biodiversity. In the coming year, we plan to build on our preliminary marine restoration work and continue progressing toward our RIIO-T3 ambitions.

For communities, we continue to deliver excellent stakeholder engagement, improving year on year. We received our highest ever stakeholder engagement scores, including our Quality of Connections survey AA1000 Stakeholder Engagement Standard. These top scores came during a year of record-level engagement. As a stakeholder-led business, we are proud to be recognised for this vital work.

Our commitment to supporting the communities that host our critical infrastructure is unwavering. This year, we launched our Community Benefit Fund ahead of formal Government guidance, providing over £2m to regional and local groups. We also began delivering our ground-breaking Housing Strategy, building and retrofitting accommodation for workers as they construct vital infrastructure and leaving this accommodation as a legacy to host communities.

None of this progress would be possible without our people, our partnerships and the right processes. This year, we welcomed over 500 new employees – including a record intake of 46 graduates – to our highly skilled workforce, expanded our supply chain partnerships, and enhanced our systems and data management to drive efficiency and impact.

As we scale up to meet the demands of net zero, we remain acutely aware of the potential impacts on climate, nature and communities. This year will see us continue work to minimise our climate and nature impacts, share benefits with our communities, and harness the power of our people and supply chain to deliver a network for net zero that benefits everyone and leaves a lasting, positive legacy for generations to come.

**Rob McDonald**  
Managing Director  
SSEN Transmission







A year in highlights 2024/25	<b>1</b>
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Foreword	<b>3</b>
----------	----------

Contents	<b>4</b>
----------	----------

Overview	<b>5</b>
----------	----------

Our approach	<b>6</b>
--------------	----------

Climate	<b>10</b>
---------	-----------

Nature	<b>24</b>
--------	-----------

Communities	<b>28</b>
-------------	-----------

People	<b>33</b>
--------	-----------

Procurement	<b>38</b>
-------------	-----------

Performance	<b>43</b>
-------------	-----------

Appendices	<b>45</b>
------------	-----------



# Overview

## About us

SSEN Transmission is responsible for the high voltage electricity transmission in the north of Scotland. Our business is responsible for the development, maintenance and operation of the high voltage 132kV, 220kV, 275kV and 400kV electricity transmission.

Our network extends over more than a quarter of the UK's landmass, covering some of the most challenging terrain in the country in order to deliver a safe and reliable supply of electricity to our communities. The network consists of underground and subsea cables, overhead lines on wooden poles and steel towers, and electricity substations.

The transmission network in Scotland has a strategic role to play in the UK's transition to net zero. We are a mass exporter of renewable energy with around two-thirds of power generated in our network area being transported to the south of the UK. Our network will continue to play a crucial role in decarbonising the UK's electricity network over the coming years. To support this demand, we are rapidly growing our network with a projected investment programme of over £22bn by March 2031. By 2030, our network will have the capability to meet 20% of the GB demand for clean power. Research published in September 2023 shows that our network will play a pivotal role in enabling one seventh of all the decarbonisation efforts needed to reach net zero across the UK by 2050.

To deliver a network for net zero, we are committed to investing in the skills and talent in the north of Scotland. Over the next decade, our investments will enable up to 37,000 of skilled jobs, with 17,500 of which will be in Scotland. We will be placing multi-million-pound contracts with supply chain partners, stimulating local businesses, and investing in community funds – adding £15bn of value to the UK economy, half of which will be in Scotland.

## About this report

This report provides a comprehensive update on our progress against the sustainability commitments outlined in our RIIO-T2 Sustainability Action Plan. This report details our performance for fiscal year 2024/2025 (1 April 2024 – 31 March 2025), which is the fourth year of our RIIO-T2 regulatory framework for 2021-2026.

This report has been prepared by Scottish Hydro Electric Transmission plc (SHE Transmission), operating as SSEN Transmission, in accordance with Special Licence Condition 9.1 (Annual Environment Report) of SSEN Transmission's license. SSEN Transmission encompass the licenced entity Scottish Hydro Electric Transmission Plc Registered in Scotland No. SC213461.

## About our shareholders

SSE, the UK and Ireland's clean energy champion, hold a majority 75% stake in SSEN Transmission. SSE's purpose is to provide the energy needed today while building a better world of energy for tomorrow. SSE aim to be a leading energy company in a net zero world. In order to create value for shareholders and society in a sustainable way, they aim to achieve this by developing, building, operating and investing in the electricity infrastructure and businesses needed in the transition to net zero. We are proud to be a part of the SSE group and continuously work to promote our collective business values. As part of the SSE Group, we are a real Living Wage employer, are Fair Tax Mark certified and ensure our compliance with the organisation-wide Human Rights and Modern Slavery Statement.

Ontario Teachers' Pension Plan (OTPP) acquired a 25% minority stake in SSEN Transmission in 2022/23. The organisation is a leading Canadian pension plan investing globally for 343,000 active and retired teachers, with over \$269.6bn<sup>1</sup> in net assets. OTPP are committed to reducing carbon emissions through ambitious targets and creating a positive impact in a net zero world.





# Our approach

## Sustainability strategy

In September 2024, we launched our new [Sustainability Strategy](#), with the full support of the Transmission Executive Committee and our Board. It is based on our double materiality assessment<sup>2</sup> and supports SSEN Transmission's enterprise strategy to Deliver a Network for Net Zero.

This Strategy focuses on our most material impact areas (climate, nature, and communities) and on how we deliver against them (through procurement, our people, and our systems, processes and performance management). In doing so, it demonstrates world-leading ambition whilst recognising the urgency of delivery. It aims to:

- **Build** on strong foundations, evolving our ambition on climate change, nature, and communities;
- **Power** sustainability leadership through a focus on procurement, people, and performance; and
- **Connect** to global sustainability ambition, best practice standards, and the latest science.



### People

- Grow skilled workforce
- Drive inclusion & wellbeing



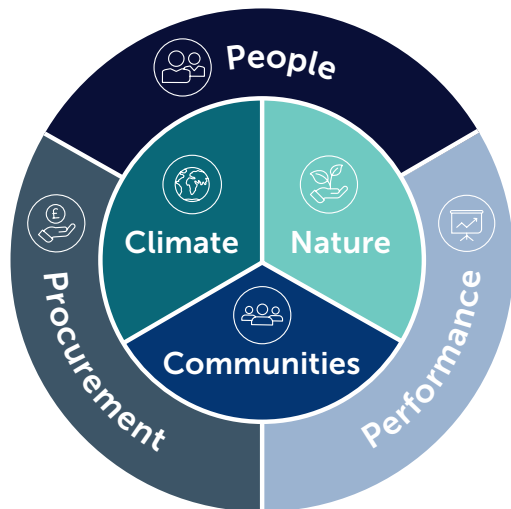
### Procurement

- Partner for excellence
- Procure responsible



### Performance

- Improve data & processes
- World-leading sustainability



### Climate

- Reduce emissions
- Build resilience



### Nature

- Protect nature
- Restore nature



### Communities

- Minimise impacts
- Share benefits



In December 2024, we published our [Sustainability Action Plan](#) as part of our RIIO-T3 business plan submission. This Action Plan builds on these six focus areas and their twelve aims and provides the detail of our targets and the actions we will take to achieve them. Our Strategy and Action Plan are helping us improve how we deliver sustainability. They build on our previous Sustainability Strategy and drive our positive performance in the last two years of RIIO-T2.

## Delivering our RIIO-T2 commitments

To enable effective monitoring of our sustainability performance, the following Red-Amber-Green (RAG) status definitions are used:

RAG Status	Key
Green: Progress is firmly on track, aligning with implementation milestones	
Amber: Progress is at risk/delayed; however it is expected to be achievable before the end of the RIIO-T2 price control period	
Red: Progress is at significant risk, and it is highly likely that milestones will be missed	

**We are meeting eight of our nine commitments. For more information on each target, please see the relevant section of the report.**

### Progress against RIIO-T2 Sustainability Business Plan Commitments

Area	Action	Milestone	Intended benefit/outcome	UN SDGs	2021/22	2022/23	2023/24	2024/25
Climate	Achieve the capacity to transport enough renewable energy through our network to power 10 million homes by 2025/26	2025/26	Contribution to meeting net zero targets in Scotland and the UK, enabling one sixth of all the decarbonisation efforts needed to reach net zero across the UK by 2050					
	Achieve a 33% reduction in Scope 1 and 2 greenhouse gas emissions by 2025/26, from a 2018/19 baseline	2025/26	Reduction in our contribution to climate change					
	Achieve a maximum Insulation and Interruption Gas leakage rate of 0.15% of installed volumes by 2025/26	2025/26	Reduction in our contribution to climate change					
Communities	Complete detailed VISTA project designs and prepare Ofgem applications for selected projects by 2023/24	2025/26	Improvements related to the visual impacts of Scottish transmission infrastructure.					
People	Achieve a more representative workforce that reflects the local communities we serve by developing improved diversity and inclusion metrics by 2023/24	2023/24	A more representative workforce that reflects the local communities we serve					
	Achieve a more inclusive working environment by 2023/24	2023/24	A more inclusive working environment					
Procurement	Achieve zero waste to landfill (excluding compliance waste) by 2025/26	2025/26	Alignment with circular economy principles and minimisation of waste, in support of sustainable resource use					
	Achieve a recycling, recovery and re-use rate of >70% across our waste streams by 2025/26	2025/26	Alignment with circular economy principles and minimisation of waste, in support of sustainable resource use					
	Achieve a 25% representation of approved suppliers based in the north of Scotland	2025/26	Support the economy of the north of Scotland					



## Sustainability governance

### Our structure

Since publishing our Sustainability Strategy and Action Plan in late 2024, we've strengthened our Sustainability Governance framework. Guided by our Sustainability Action Plan (2024-2031), we produced an internal Annual Sustainability Action Plan (ASAP) to drive action for 2025/26.

To deliver on this ASAP, we have established Delivery Groups (DGs) for Sustainability focus areas, led by senior Sponsors, chaired by an appointed leader and supported by subject matter experts from across Transmission. DGs report to the Sustainability Steering Group (SSG), consisting of senior leadership Sponsors, other leaders and SSE's Chief Sustainability Officer. Additionally, progress against the ASAP is reported quarterly to the Transmission Executive Committee (TEC).

This report was shaped through a robust review involving DG Chairs, TEC, and the SSEN Transmission Board, ensuring it reflects diverse expertise and stakeholder needs.

### Our projects

All Large Capital Projects (over £40m) must complete a Sustainability Assessment and Action Plan (SAAP) through each project stage. The SAAP prompts project teams to identify sustainability impacts, manage risks and explore opportunities throughout the project lifecycle. The central Sustainability Team is collaborating with colleagues across the SSE group and in Transmission project teams to strengthen and streamline the SAAP process and ensure that project teams can access, understand and build upon sustainability best practice within the business. Throughout 2025/26, we will continue enhancements started in 2024/25 to be able to better track, monitor and report our project sustainability performance, quantify the impact from the sustainability measures we identify and implement, and identify best practices across our projects.



### Green finance

Financing the energy transition is vital to achieving net zero. The SSE Group has a long history of working with financing institutions committed to promoting a sustainable future. Across the Group, we remain the UK's largest issuer of Green Bonds, currently sitting at over £4.4bn.

SSEN Transmission has led in the utilisation of SSE Group's green finance and has again been at the forefront of engaging with the sector in 2024/25. During the year we undertook extensive work to refinance our existing revolving credit facility and increase the commitment from £750m to £1.5bn.

This facility complies with the Sustainability-Linked Loan Principles, an external framework that ensures environmental and social considerations are integrated into the loan terms. We incorporated a set of Environmental, Social and Governance (ESG) targets, aligning our financing with our sustainability strategy:

- Reduction in Scope 1 and 2 emissions
- Suppliers setting science-based emission reduction targets
- Scope 3 transmission losses intensity reduction
- Capex spend on connecting renewables

Whilst performance against the targets in the ESG Revolving Credit Facility is not explicitly covered in this report, performance against our GHG emissions targets and new low carbon generation connections can be found throughout this report.

## SSEN Transmission and the Just Transition

At SSEN Transmission, we are building a network for net zero – one that delivers power for generations. As we rapidly expand our infrastructure to support clean power and energy security, we are equally committed to ensuring this transformation is fair, inclusive and grounded in place.

A just transition means people and places share in the benefits of decarbonisation, with opportunities for workers, businesses and communities, and with actions that help to reduce inequalities. That is why our approach goes beyond decarbonisation alone: it is about creating positive outcomes for the communities, people and natural environments of the north of Scotland, while respecting human rights across our value chain.

### Our approach and governance

SSEN Transmission's approach is guided by SSE's Just Transition Strategy and underpinned by our Sustainability Strategy and governance. We embed Fair Work principles, maintain Living Wage accreditation, and apply robust supplier standards – including zero tolerance of modern slavery – through our due diligence and contract management. We plan long-term and act locally, combining strategic network planning with place-based engagement to shape projects that deliver lasting value.

### What we focus on

**Place-based growth** – The transition to net zero must support local communities, economies and environments.

**Opportunity for all** – We support people from all backgrounds to participate in the clean energy economy.

**Partnership with communities** – Strong, trusted relationships with local communities are central to our work.

**Net positive for nature** – We are committed to leaving Scotland's natural environment better than we found it.

## What we are doing

### Place-based growth

- Enable up to 1,000 homes across the north of Scotland by 2030 – housing workers while they build our network and helping communities facing acute housing pressures – working with local partners and subject to relevant consents.
- Embed social value requirements in major contracts, supporting local supply chains and inclusive economic development.
- Undertake in depth socioeconomic assessments for major investments to maximise local benefits and enable growth.

### Opportunity for all

- Develop and publish a Just Transition Workforce Plan by end of 2026.
- Offer reskilling and career pathways for workers from high-carbon industries and young people across the north of Scotland.
- Uphold Fair Work principles, including Living Wage accreditation and meaningful employee engagement.

### Partnership with communities

- Provide up to £100 million in Community Benefit Funding by 2030, aligned with local aspirations and needs.
- Provide best-in-class stakeholder and community engagement across major projects, building trust and shared ownership.

### Net positive for nature

- Achieve at least 10% BNG across new projects and expand nature restoration into the marine environment.
- Integrate place-based environmental stewardship, delivering location specific restoration initiatives for key species and habitats most affected by development.
- Reduce construction impacts through careful design, routing and delivery, and share learning openly with partners.



# Climate

In 2024/25, SSEN Transmission continued to deliver and maintain critical infrastructure for the UK's net zero transition. Our network enabled the transmission of renewable energy to power 13.7, helping to displace 7.66 million tCO<sub>2</sub>e – a powerful demonstration of our contribution to the UK's net zero transition.

We achieved our lowest ever Scope 1 and 2 emissions, down 19% from our 2018/19 baseline, including a 13% year-on-year decrease. This was driven by continued leadership on SF<sub>6</sub> leakage, with a record-low rate of 0.10%, and increased operational fleet electrification – now accounting for more than half of all miles travelled.

Scope 3 emissions intensity also fell, achieving a 69% reduction in transmission losses emissions since our baseline year. We continued to work with our supply chain, surpassing our target with 74% of suppliers (by spend) now setting Science Based Targets.

Despite these successes, transport emissions have increased due to workforce and network growth. Emissions from substation electricity use have continued to reduce, albeit at a slower pace than anticipated due to factors outside our direct control. As a result, we consider our emissions reduction trajectory to be at risk, reflected in the amber rating below.

Finally, we published our Climate Resilience Strategy, began flood mitigation design for nine sites, and joined the Climate Ready Infrastructure Scotland forum, reinforcing our commitment to climate-resilient infrastructure.

## *Progress against RIIO-T2 Sustainability Business Plan Commitments (Climate)*

Sustainability outcome	2021/22	2022/23	2023/24	2024/25
Achieve the capacity to transport enough renewable energy through our network to power 10 million homes by 2025/26				
Achieve a 33% reduction in Scope 1 and 2 greenhouse gas emissions by 2025/26, from a 2018/19 baseline				
Target a maximum Insulation and Interruption Gas leakage rate of 0.15% of installed volumes by 2025/26				

All data required by Ofgem for our Integrated Joint Venture project with National Grid Electricity Transmission (Eastern Green Link 2) can be found in Appendix 4.

## Connecting clean power – our role in supporting the UK's Net Zero Transition

- **36.5 TWh of renewable generation connected capacity**
- **13.7 million homes powered with renewable energy**
- **7.66 million tCO<sub>2</sub>e displaced**
- **1.6 GW renewable energy connected last year**
- **8.7 out of 10 rating for quality of connections**

Our business plays a central role in the UK's net zero transition, connecting the renewable energy capacity in the north of Scotland to the rest of the country. Our network will enable one-seventh of the UK's required decarbonisation to achieve net zero by 2050.

During 2024/25, our network had a connected capacity of 36.5 TWh of renewable generation:

- 16.68 TWh onshore wind
- 14.36 TWh offshore wind
- 4.57 TWh hydroelectric
- 0.18 TWh battery storage
- 0.02 TWh solar
- 0.59 TWh tidal array

At the end of 2024/25 our transmission, distribution and storage connections transmitted enough renewable energy to power 13.7 million homes - 1.4 million more than last year and well above our T2 target of 10 million — displacing 7.66 million tCO<sub>2</sub>e over the course of the financial year. In contrast, our business emitted 8,267 tCO<sub>2</sub>e in Scope 1 and 2 and 497,921 tCO<sub>2</sub>e in Scope 3.

We connected 1.6 GW of new renewables, increasing our share of low carbon energy from 88% to 89% — our largest annual increase this price control period. SSEN Transmission currently has 10.9 GW of low carbon generation connected to the network.

We issued 274 new connections offers to electricity generation developers in the north of Scotland. Connections reform and uncertainty in the industry led to a reduction of 15% in new offers made compared with prior year. Despite this, we saw 74% of those offers accepted — up from 66% in 2023/24. All connection offers were made within the required timescale of two months and 14 days.



The Quality of Connections (QoC) survey allows us to gather valuable feedback at key stages throughout the connections process and plays an important role in measuring customer satisfaction. The insights gained from the survey throughout the year are used to identify and drive service improvements, delivering an enhanced customer experience. In 2024/25 we achieved an overall QoC score of 8.7 out of 10, an improvement on the previous year and outperforming Ofgem's baseline score of 7.7.

See Connections Table in Appendix 2 for full data.

## Ambitious Science Based Targets

- **3 consecutive years achieving Planet Mark verification**
- **Achieved both of our Scope 3 science-based targets**

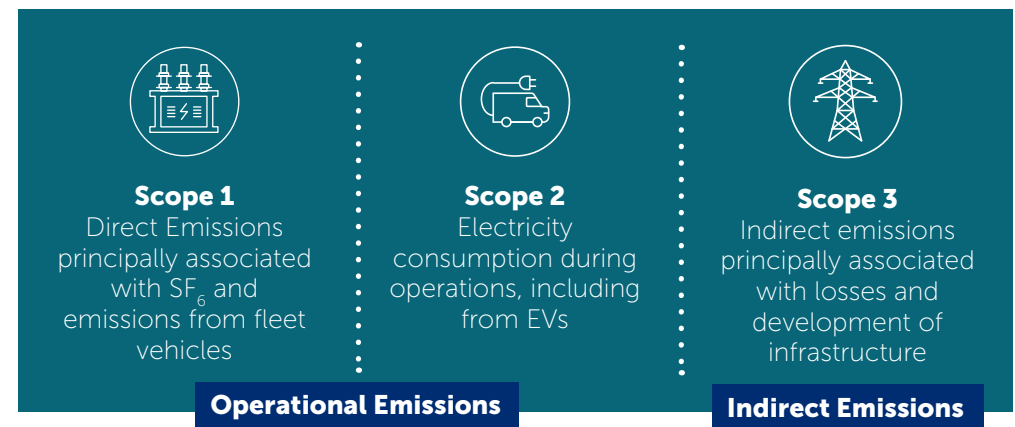
As we deliver a network for net zero, we are committed to reducing our own emissions credibly and transparently. In July 2020, SSEN Transmission became the first electricity transmission network operator globally to have its greenhouse gas (GHG) reduction targets validated by the Science Based Targets Initiative. Science Based Targets (SBTs) are based on a trajectory aligned with the Paris climate agreement goal of limiting global average temperature rise to below 1.5°C above pre-industrial levels.

We have set the following stretching targets:

- Reduce absolute Scope 1 and 2 GHG emissions 46% by 2029/30 from a 2018/19 base year (33% by end of 2025/26)
- Reduce Scope 3 transmission losses emissions GHG intensity by 50% over the same period
- Reduce Scope 3 emissions by ensuring that two thirds (67%) of our suppliers by spend will have an SBT by 2024/25

For the third year running, Planet Mark have independently verified our Scope 1, 2 and 3 business carbon footprint in accordance with ISO14064-3:2019, the international standard for GHG reporting.

*Our Science Based Targets cover all scopes including:*



### Science-based targets commitments and progress

	2021/22	2022/23	2023/24	2024/25
Reduce absolute scope 1 and 2 GHG emissions 46% by 2029/30 from a 2018/19 base year (33% by end of 2025/26)	12% reduction against base year	4% increase against base year	6% reduction against base year	19% reduction against base year
Reduce scope 3 transmission losses emissions GHG intensity by 50% over the same period	40% reduction against base year	39% reduction against base year	64% reduction against base year	69% reduction against base year
Reduce indirect emissions by ensuring that two thirds (67%) of our suppliers by spend will have an SBT by 2024/25	43% of suppliers by spend have set an SBT	47% of suppliers by spend have set an SBT	70% of suppliers by spend have set an SBT	74% of suppliers by spend have set an SBT



## Taking action on our operational emissions

- **19% reduction in Scope 1 & 2 Emissions since 2018/19**
- **0.10% SF<sub>6</sub> Leakage Rate – lowest of any UK Transmission Operator (TO)**
- **56% of miles travelled in electric vehicles**
- **Green electricity tariffs for all DNO-supplied substations**

Setting ambitious targets is only the first step - delivering against them is what matters. This includes reducing our Scope 1 and Scope 2 emissions, which fall within our direct operational control. Our total Scope 1 and 2 emissions for 2024/25 were 8,267 tCO<sub>2</sub>e, the lowest Scope 1 & 2 missions since 2018/19, with:

- A 19% reduction against our baseline
- A 13% reduction compared to 2023/24

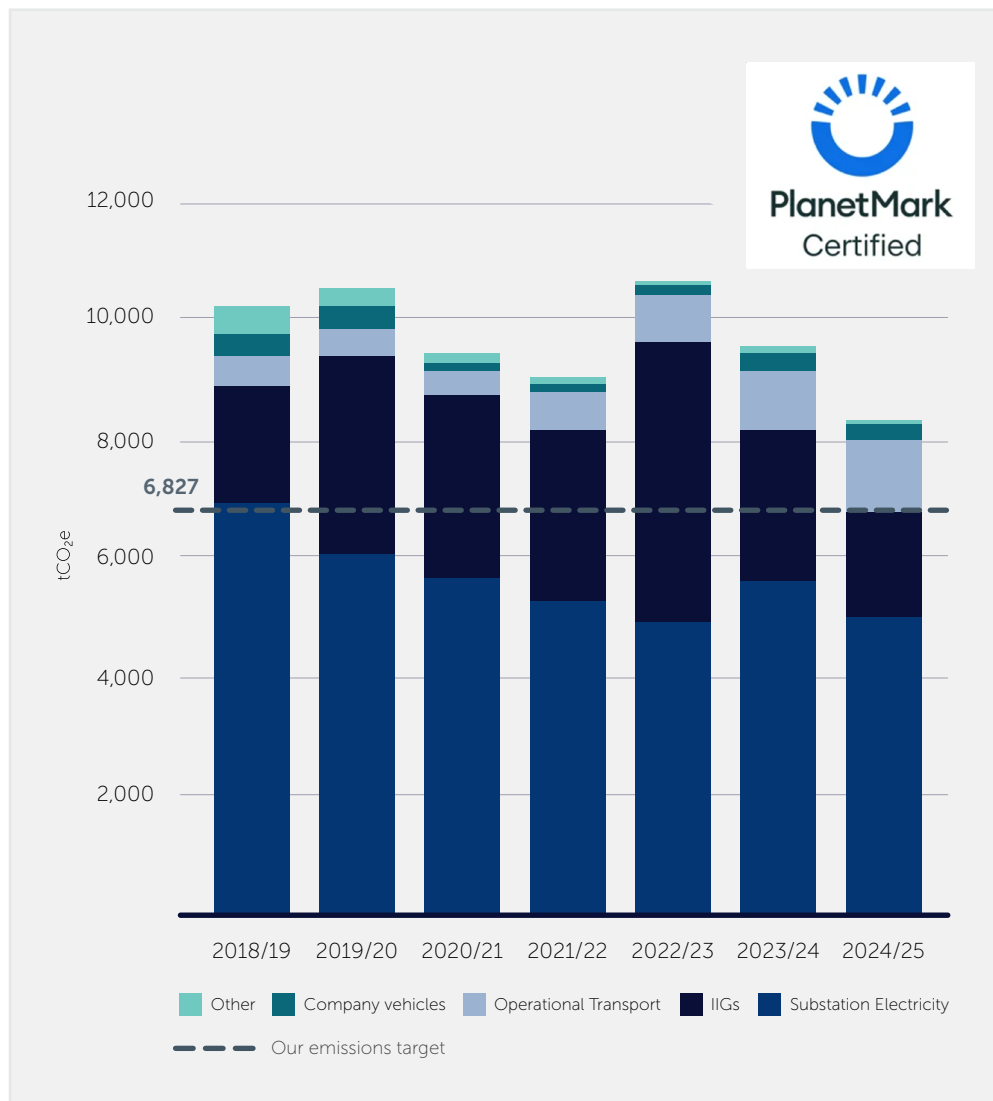
This year we made some updates to our emissions calculation methodology. We have included updated figures for our base year and RIIO-T2 data in line with this new methodology. The methodological updates are due to aspects such as changes to emissions factors to better align with market-based accounting, reclassification of vehicle types, corrections to errors in historical source data and new Global Warming Potential as per our license conditions.

See the Scope 1 and 2 emissions table in Appendix 2 for full data.



## Scope 1 and 2 performance

2024/25 Business Carbon Footprint (Scopes 1 and 2)



### [Planet Mark Verification Report](#)

Despite our biggest ever drop in Scope 1 and 2 emissions, our emissions reduction trajectory is off course, putting our target to cut emissions by 33% by the end of 2025/26 at risk.

Our key operational emission streams are:

- Insulation and Interruption Gases (IIG)
- Operational transport
- Substation electricity use

We will continue to:

- Maintain our industry-leading performance on IIG leakage
- Transition our fleet to electric vehicles and realise efficiencies in transport
- Support green electricity tariffs where feasible

Each emission stream is discussed in further detail below.





## Scope 1 Insulation and Interruption Gas emissions

IIGs are essential for safe, resilient network operation. However, the most common IIG, sulphur hexafluoride (SF<sub>6</sub>), is a potent greenhouse gas, 24,300 times more impactful than CO<sub>2</sub>. When leaks occur, they have a significant impact on our carbon footprint. In 2024/25, we achieved an industry-leading leakage rate of 0.10% despite almost doubling the amount of SF<sub>6</sub> on our network since 2018. This is less than half of our IIG incentive target (0.38%) and our best result since 2018/19.

### SF<sub>6</sub> alternatives

Our policy is to use SF<sub>6</sub> alternatives wherever technically feasible and we continue to work with our supply chain to secure and deploy alternatives wherever possible. In 2024/25, IIG volumes rose due to network growth, with 7.3t added including 5.1t SF<sub>6</sub> and 2.2t clean air (non-GHG). We energised the first 132kV Gas-Insulated Substation (GIS) at Kergord Substation, designed to operate exclusively with clean air. We also energised Alyth and Kinardochy 400kV GIS substations with SF<sub>6</sub>-free gas-insulated busbars, avoiding approximately 4.9 tonnes of SF<sub>6</sub>.

### Reducing SF<sub>6</sub> leakage

We brought together colleagues from across the business to form an internal SF<sub>6</sub> working group. As a result, our Operations and Maintenance teams now undertake more proactive repair work and tackle the root causes of leaks, such as corrosion in the flanges on our outdoor gas insulated busbars. The roll out of gas density monitoring systems will enable us to identify leaks early and intervene more quickly. We are also reviewing leaks caused by process failures rather than condition-driven leaks. These are rare events but can result in large avoidable leaks.

### Improving reporting

For increased transparency, we have included figures on our IIG inventory below and reported on SF<sub>6</sub> leaks occurring during construction and installation, while assets are still under our contractors' operational control (see Scope 3 section).

To improve consistency of reporting between Transmission Operators (TOs) and to ensure alignment between this report and our regulatory reporting pack, we have not reported the emissions reductions associated with specific interventions here. Our SF<sub>6</sub> emissions are falling because of business-as-usual activities rather than separately funded interventions.

#### IIGs in the network

Metric	Unit	2018/19 base year	RIIO-T2 Period				
			2021/22	2022/23	2023/24	2024/25	2025/26
Inventory – SF <sub>6</sub> <sup>3</sup>	kg	37,988	52,013	60,973	61,127	70,680	75,747
Inventory – C4-FN-based gases	kg	0	0	4,588	4,599	6,317	6,317
Inventory – Natural origin gases	kg	0	0	0	0	2,731	4,888
Leakage – SF <sub>6</sub> <sup>4</sup>	kg gas	81.9	118.2	194.2 <sup>5</sup>	106	74	n/a
Leakage – SF <sub>6</sub>	tCO <sub>2</sub> e	1,990	2,871	4,719	2,575	1,786	n/a
Leakage rate – SF <sub>6</sub>	%	0.22	0.23	0.29	0.17	0.10	n/a

<sup>3</sup>Updates to past RIIO-T2 data based in Asset Management corrections to IIG inventory. These updates have no impact on historical leakage rates due to small magnitude of corrections.

<sup>4</sup>Leakages have been limited to SF<sub>6</sub>; no other IIG leakages have occurred.

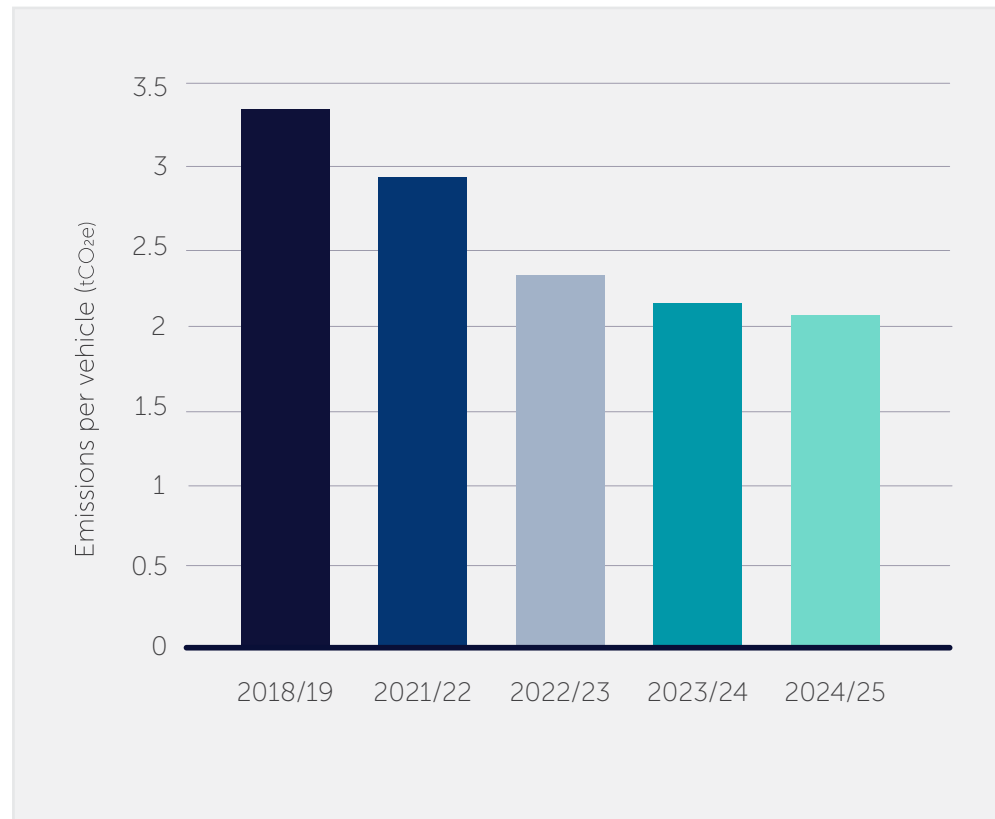
<sup>5</sup>Update to past year data to reflect updated figures from Asset Management.

## Transport Emissions

Operational transport emissions (from fuel used in vehicles we own or operate) rose 14% year-on-year, driven by a 13% increase in fleet fuel use and a 29% rise in company car mileage - reflecting workforce and network growth. However, EV adoption helped offset the impact, with 56% of company car miles now electric (up from 50% the previous year).

Due to incomplete mileage data, we track emissions per vehicle as our progress indicator. These emissions are down 38% compared to the baseline.

### *Average emissions per vehicle*



See the Transport emissions table in Appendix 2 for full data.

## Enabling Low-Carbon Transport

We are working to facilitate the electrification of our operational fleet by 2030. As part of our T2 delivery, we are currently rolling out the delivery of electric vehicle (EV) chargers across 15 of our network sites. The installation of these chargers is expected to be completed by April 2026 with an additional 14 more expected to be completed in 2030.



*EV chargers at Brora Substation*





## Building energy use

Electricity consumption falls within Scope 2 and is associated with the GHGs from electricity consumption in substations. Our substations consume electricity to power communication and control systems and to provide heating and lighting for on-site staff.

This consumption accounts for approximately 60% of our total Scope 1 and 2 footprint, resulting in 4,992 tCO<sub>2</sub>e in 2024/25. Emissions per substation have declined over time, mainly due to a lower UK grid emissions factor, though this remained higher than expected and is beyond our direct control.

We achieved an 11% reduction in overall substation emissions compared to FY 2023/24, resulting in a 9% decrease in emissions against our baseline. This was primarily driven by switching most of our substations – those supplied by Distribution Network Operators (DNOs) – to tariffs backed by Renewable Energy Certificates.

### Substation electricity use<sup>6</sup>

Metric	Unit	2018/19 base year	RIIO-T2 Period			
			2021/22	2022/23	2023/24	2024/25
Emissions per substation (market-based)	tCO <sub>2</sub> e	55.24	40.72	37.80	42.64	37.54
Change against baseline	%	0	-26	-32	-23	-32

Note, we have restated our historical figures to include consumption at our High Voltage Direct Current (HVDC) sites which had previously been excluded.

## Taking action to reduce our indirect emissions

- **74% of our suppliers by spend have science based targets**
- **69% decrease in emission intensity of transmission losses since 2018/19**
- **6 projects assessed for capital carbon emissions**

In addition to reducing our operational emissions, we must also take action to decrease our Scope 3 emissions. Scope 3 GHG emissions are indirect emissions that occur in our value chain, for which we share responsibility with others. Our largest category of Scope 3 emissions is capital goods, with transmission losses, purchased goods and services, well-to-tank and business travel also being material.

## Increasing emissions as our network grows

Our total Scope 3 emissions for 2024/25 are 497,921 tCO<sub>2</sub>e. This is a 200% increase against our 2018/19 base year and an 81% increase against 2023/24. This is almost exclusively associated with capital goods which are increasing due to the significant growth and investment required to deliver Clean Power 2030. This is a unique challenge for UK Transmission Networks – we need to build more than ever before to support the net zero transition – but as we do this, we will use more materials and equipment.

Since 2018/19, our capital spend has increased 229% against base year and the electricity on our network has decarbonised 69% against base year. As a result, over the same time-period, capital goods have grown from 67% to 92% of our Scope 3 footprint and transmission losses have fallen from 26% to 4%. This means trends in our capital spend are the primary driver of our Scope 3 emissions going forward (see Embodied Carbon section for more detail).

## Success against science based targets

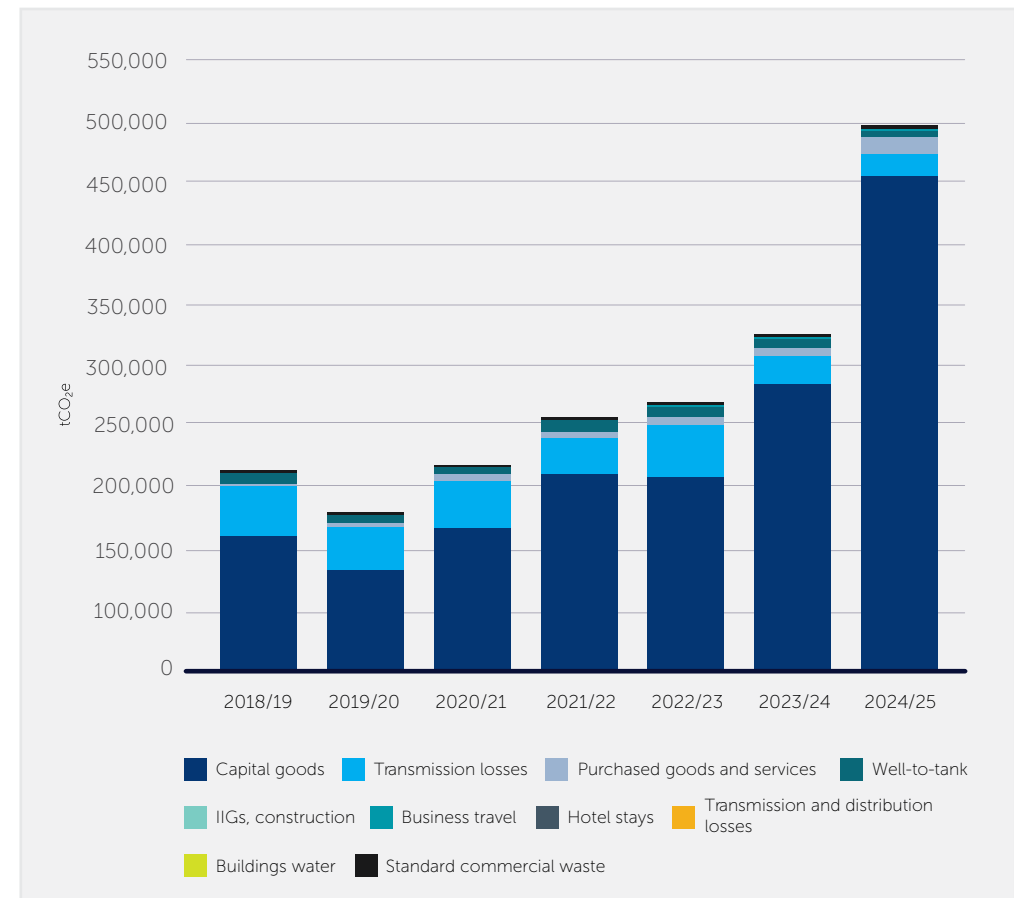
Despite the overall increase in Scope 3 emissions, this year we achieved our Scope 3 Science Based Targets, with 74% of suppliers by spend now having their own science based targets against a target of 67% by 2024/25, and a reduction in the carbon intensity of our transmission losses of 69% against a target of 50% by 2030.

## Reporting improvements

In line with our commitment to ongoing Scope 3 reporting improvements, we have continued using the methodological improvements that we implemented last year. These improvements were made following recommendations from our 2022/23 Planet Mark ISO14064-1 verification process and focused on our capital

goods and purchased goods and services calculation methodologies. We have split out purchased goods and services and capital goods and have applied Department for Environment, Food and Rural Affairs (DEFRA)-published emissions factors to convert our spend into GHG emissions. These emissions factors include GHGs emitted by our supply chain outside the UK and are therefore a better measure of our consumption-based footprint. We have restated our historical figures after removing the inflation adjustments we had previously applied to the DEFRA emission factors to align with SSE Group reporting practices. We also report on SF<sub>6</sub> leaks occurring during construction and installation, while the assets are within our contractors' operational control.

## 2024/25 Scope 3 emissions



See the Scope 3 emissions table in Appendix 2 for full data.



## Embodied carbon

We classify all emissions associated with the production of infrastructure as 'embodied' or 'capital' carbon. This type of carbon is the largest proportion of our overall carbon footprint (approximately 92%).

Reducing emissions across capital projects requires robust measurement and management of embodied carbon, alongside other whole life carbon impacts. Unlike Scope 1 and 2 emissions, embodied carbon typically falls outside our direct control, making it a more complex challenge. To address this, SSEN Transmission is implementing processes aligned with the [PAS 2080 Carbon Management in Buildings and Infrastructure](#), focusing on:

- Benchmarking
- Target setting
- Monitoring
- Continuous improvement

In 2024/25, we conducted detailed embodied carbon assessments for six projects energised during the year. These include:

- Shetland HVDC
- Tummel Bridge Substation Upgrade
- Thurso South Synchronous Compensator
- Rothienorman Synchronous Compensator
- Zenobe Battery Connection
- Moray West Offshore Grid connection

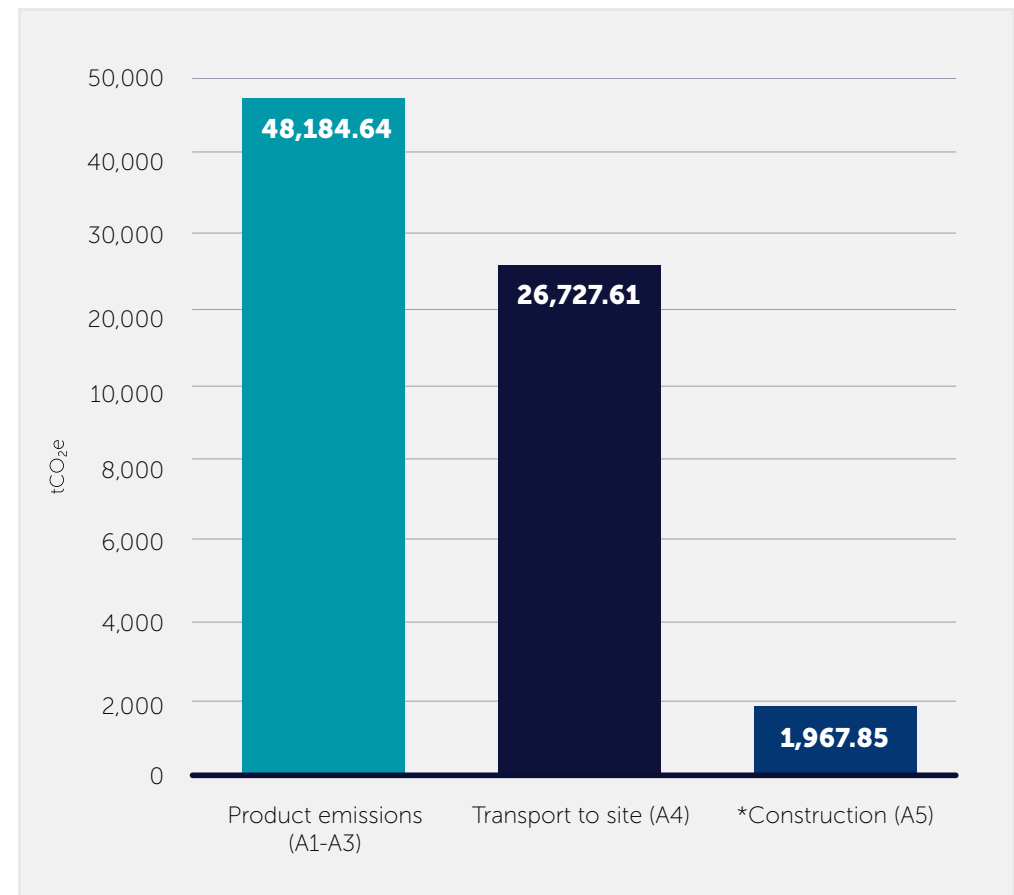
The full methodology is provided in Appendix 3. These assessments are critical for identifying emissions hotspots and informing targeted reduction strategies.



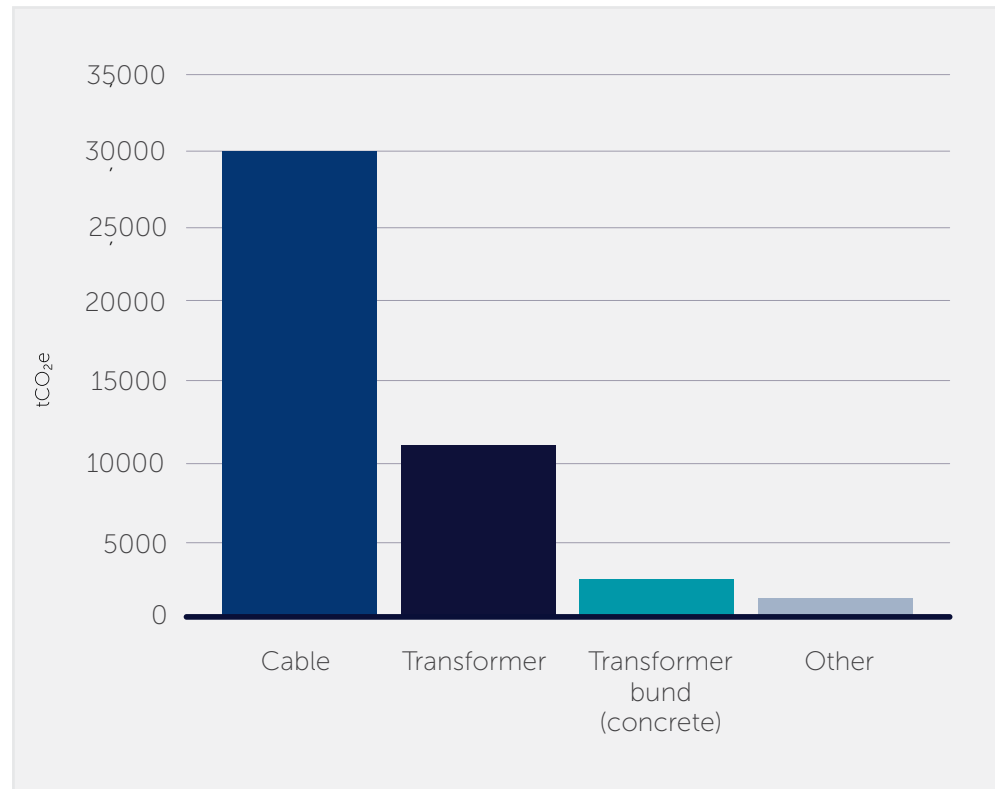
## Key Findings

- The majority of capital carbon emissions stemmed from the 'Product Stage', which includes emissions from the manufacture of materials such as concrete, steel, and electrical equipment (63%). These are broken down further due to the level of detail in the assessment (see below).
- Construction-related fuel and energy use also contributed significantly (35%)
- Emissions from transporting goods and materials to site accounted for a relatively small proportion (c3%).

### Embodied carbon emissions by stream



### Shetland HVDC product stage emissions hotspots



### Product Stage Emissions - Shetland HVDC

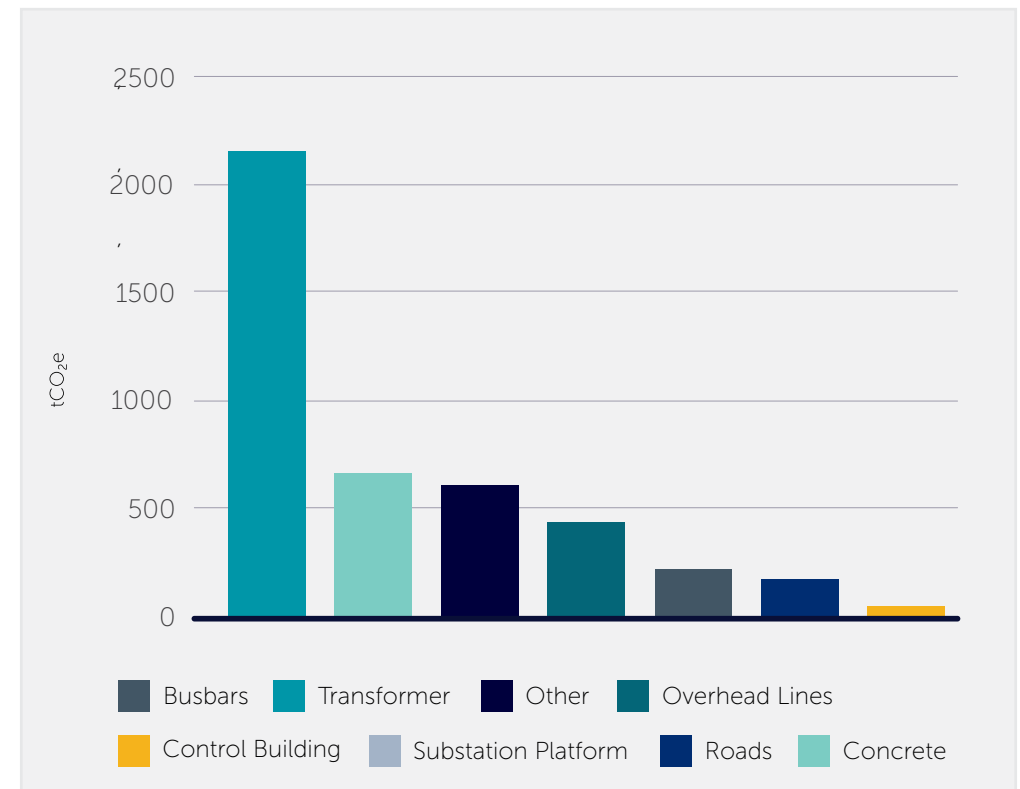
Shetland HVDC was the largest project assessed, both in terms of scale and capital investment. Due to its size, its Product Stage emissions are presented separately from other projects.

Total Product Stage emissions for Shetland HVDC were estimated to be 68,595 tCO<sub>2</sub>e, equivalent to the annual emissions of over 16,500 average UK households.

Primary carbon hotspots include:

- HVDC cable
- Transformers within the converter stations
- Concrete

### Other projects product stage emissions hotspots



### Product Stage Emissions - All Projects Excluding Shetland HVDC

For the smaller-scale onshore projects (excluding Shetland HVDC), Product Stage emissions are shown cumulatively.

Total Product Stage emissions for all other projects were estimated to be 8,200 tCO<sub>2</sub>e, equivalent to the annual emissions of over 2,000 average UK households.

Primary carbon hotspots include:

- Transformers and other electrical equipment
- Overhead line towers
- Concrete
- Roads and access tracks

Embodied carbon reporting under RIIO-T2 has matured significantly, driven by collaboration with other TOs. This has enabled the development of shared tools, databases, and aligned reporting scopes. TOs have jointly proposed a new common approach to supporting low carbon construction materials and opportunities to reduce embodied carbon. This proposal is currently being negotiated as part of the RIIO-T3 draft determination process.

We have also updated our contractor requirements to include a structured approach to carbon management for contractors delivering infrastructure projects. The new requirements mandate alignment with PAS 2080 and requires contractors to proactively reduce whole-life carbon emissions through a combination of planning, measurement, and reporting. We will continue to use assessment insights to communicate carbon hotspots internally and across our supply chain, ensuring efforts are targeted where they matter most.



## Avoiding Excess Resource Use

During 2024/25 we began work to replace an end-of-life transformer at a renewables grid connection substation in the Highlands. The traditional approach would have seen the upgrades done 'offline', requiring a relatively large extension to be added to the existing substation. This would necessitate nearby old growth native forest to be cleared and would require concrete and steel to be fabricated and installed for the new build. Instead of this relatively costly and carbon-intensive option, we initiated a project to deploy the first Mobile Substation of its type in northern Europe. This will temporarily bypass the existing transformer, allowing it to be replaced in-situ with much reduced outage durations on the connected renewable energy. This significantly decreases the environmental impact of the project.



See the Embodied carbon by project table in Appendix 2 for full data.



## Transmission losses

Transmission losses are the second-largest part of our Scope 3 footprint. We achieved our losses emission target several years early, with a 69% reduction in the carbon intensity of these losses (measured in tCO<sub>2</sub>e/GWh). This reduction has been enabled through the increasing proportion of renewable energy connected to our network – our network transmitted 19.041 TWh of electricity, of which 17.085 TWh was renewable.

Emissions from electricity transmission losses are affected largely by the energy market and the operation of the system. In 2024/25, the emissions intensity of the electricity on our network, and therefore of our losses, reached a record low of 0.038 kgCO<sub>2</sub>e/kWh.

### Actions to reduce losses

We recognise that network losses are likely to rise in the years ahead as our network grows and as power flows across the GB network evolve. We are taking action now to keep them as low as possible. We are already addressing losses in several ways and will continue to do so in RIIO-T3:

- **Smarter investment choices** – We factor in the full lifetime cost of equipment, including the carbon impact of losses, when purchasing new transformers at any voltage. This ensures we select the most efficient and cost-effective designs.
- **Better conductors for lower losses** – When building or upgrading overhead lines, we select materials with lower resistance and, where appropriate, larger conductor sizes, particularly for new wind farm connections.
- **Exploring new low-loss technology** – We have trialled Aluminium Conductor Composite Core and will consider wider deployment if remaining maintenance challenges are resolved.
- **Reducing current with smarter control** – Dynamic Reactive Compensation at substations reduces the current flowing through conductors, lowering overhead line losses.
- **Targeted monitoring and analysis** – We are improving our tools to pinpoint exactly where losses occur. By combining control room data with power flow studies, we can target future loss-reduction measures more precisely.
- **Tracking emerging solutions** – From coated conductors to high-temperature, low-sag designs and, possibly, even superconductors, we are monitoring innovations that could reduce losses while maintaining performance.

By combining better design, smarter technology, and ongoing innovation, we are working to keep our network efficient and its environmental footprint smaller.

See the Transmission losses table in Appendix 2 for full data.



## Increasing resilience against climate change

- **Proposed flood risk mitigation measures for nine sites**
- **Climate Change Resilience Strategy published**

A 2025 Climate Change Committee report<sup>7</sup> highlights growing climate risks, including insufficient management of energy asset vulnerability to extreme weather. Within our business, ensuring network reliability means preparing for, responding to, and recovering from such events.

In 2022/23, we assessed flood risk at 120 of our sites, identifying 34 as high-risk. These underwent further analysis in 2023/24 using hydraulic modelling, resulting in a Risk Priority Matrix that flagged nine sites for mitigation. In 2024/25, we engaged a specialist design consultant who is currently developing design solutions for mitigation measures to be implemented at these nine sites. Physical mitigation measures for these nine sites are part of our proposed Climate Resilience investment for RIIO-T3, as well as basement sealing works at 55 substations based on the outputs of internal risk assessments and historic records of flooding at these sites.

In December 2024 we published our Climate Resilience Strategy as part of our RIIO-T3 business plan. In RIIO-T3 we plan to develop our understanding of climate risks to the network, invest in future-proofing assets, and enhance operational flexibility in order to ensure a reliable, sustainable and secure energy supply. This includes planned action to ensure up to date minimum resilience standards for all asset types; conducting detailed scenario planning to understand whole system impacts; and consideration of adaptation for offshore assets.

Our infrastructure does not operate in isolation — it functions as part of a complex, interconnected system. When climate-related risks like extreme weather or flooding strike, their impacts can ripple across sectors, disrupting services and communities in far-reaching ways. In May 2025, we signed the Climate Ready Infrastructure Scotland forum's Memorandum of Understanding on climate adaptation. The Forum brings together infrastructure owners and operators across the energy, transport, telecoms, water, health, academic and public sectors so that we can work together — pooling knowledge, aligning efforts, and taking collective action. By bringing together those who plan, deliver, and manage infrastructure across Scotland, the group aims to build a more resilient future for everyone.

In addition to these activities, we will align with global best practice in climate resilience, expanding our risk assessments to include transition as well as physical risks, mapping and mitigating interdependent and cumulative risks, and undertaking financial quantification of climate risks to our business.

## Looking ahead

In 2025/26, the last year of RIIO-T2, we will continue to strive to meet our emissions targets for this price control period, specifically through action on SF<sub>6</sub> and transport. In early 2025, we grew our capacity on climate change to support the delivery of our climate commitments. As we complete this period, we will continue to seek out low carbon solutions for SF<sub>6</sub>, concrete and other high-carbon materials.

Our RIIO-T3 business plan sets our network up for significant growth over the next price control period (2026-2031). This growth will likely mean an increase in our Scope 3 emissions. This year, we plan to set a Scope 3 GHG emissions reduction target and develop a plan for how to achieve this target. Also, within the RIIO-T3 period, we are committed to achieving external verification of our alignment with the PAS 2080 standard for carbon management in buildings and infrastructure. Controlling Scope 3 emissions and alignment with PAS 2080 will be supported using low carbon materials and construction methods, as well as regular engagement with our contractors.





# Nature

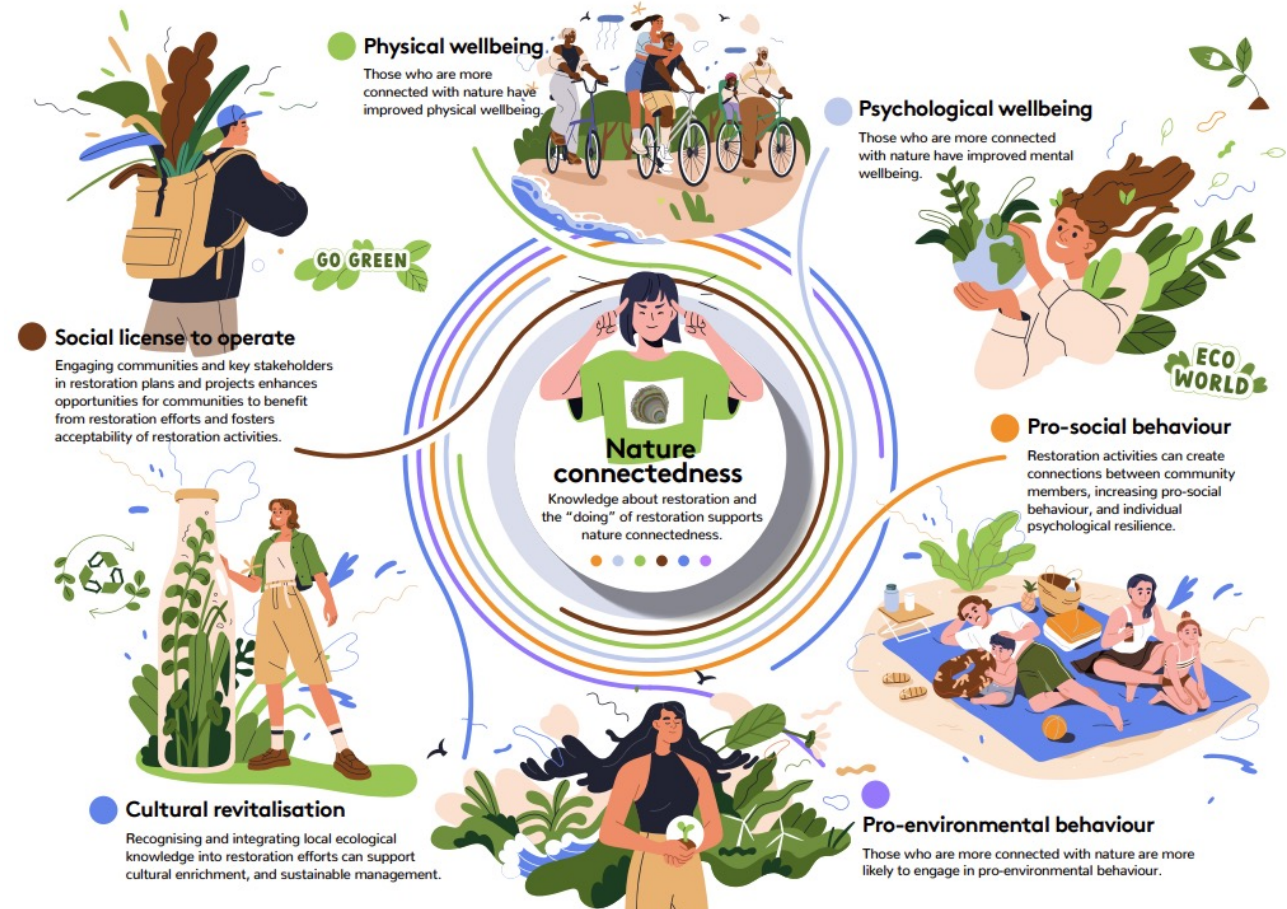
Given that biodiversity decline is intrinsically linked to the climate crisis, the mitigation and reversal of biodiversity loss is a crucial aspect of delivering a network for net zero. SSEN Transmission has been recognised for our industry-leading biodiversity commitments, against which we continue to progress.

We remain committed to delivering to 10% BNG on all eligible new infrastructure projects and following the mitigation hierarchy of No Net Loss of woodland cover. Where replanting is necessary, we continue to prioritise native broadleaf planting as this provides higher biodiversity value.

In 2024/25, we continued collaborating with other TOs to understand our natural capital impacts with a view to adopting a standardised approach. In addition, we completed an internal study and review on natural capital. Looking ahead, we will explore tools and options to begin assessing our assets.

Alongside other TOs, we have been working with experts to begin to map hotspots of adverse nature activity in our supply chains. Under the guidance of one of our shareholders, Ontario Teachers' Pension Plan, we have been working to analyse the locations in which we operate and the nature risks associated with our direct operations. We expect these studies to be completed next year and will use the findings to guide supplier engagement and our approach to nature risk disclosure.

Over the last year, we have worked to develop our position on Marine Net Gain and Marine Restoration. We commissioned three reports from the Scottish Association of Marine Science (SAMS) on Seagrass Restoration, Native Oyster Restoration and Marine and Intertidal Biosecurity. These reports will shape how we deliver our marine commitments and show the positive impact marine restoration can have on wellbeing and social behaviour.



*Nature Connectedness Diagram*  
©2025, Scottish Association for Marine Science



## Biodiversity Net Gain

### 11% Biodiversity Net Gain

All projects gaining consent in 2024/25 achieved a minimum of No Net Loss of biodiversity (100% of their baseline), measured using the SSEN Transmission Biodiversity Toolkit. Our Toolkit is informed by the Natural England Biodiversity Metric v 3.1 and adapted to reflect the challenges presented by Scottish habitats and TO specific infrastructure. Guidance on interim metrics recently published by NatureScot confirms that our approach is appropriate.

Through on- and off-site biodiversity enhancement design, we have designed in 847 area habitat Biodiversity Units, exceeding the baseline of all eligible consents by 83 Biodiversity Units (13.8% above minimum requirements). All eligible consents achieved 10% or more (11% on average) uplift and therefore achieved BNG.

### Partnering for Biodiversity

SSEN Transmission and RSPB Scotland have joined forces to enhance biodiversity and restore habitats at the Inversnaid Nature Reserve in Loch Lomond and the Trossachs National Park. The partnership at Inversnaid was developed to support SSEN Transmission's BNG commitments on its Sloy-Windyhill overhead line (OHL) refurbishment project. Project construction began in April 2024 and BNG works began in summer 2025. The project will focus on revitalising 218 hectares of upland habitat, promoting ecological resilience and supporting native wildlife.



### Biodiversity Net Gain

Project name	Baseline biodiversity units (area)	Designed in biodiversity units (area)	Total net unit change	Overall % net change
Protection Modernisation - Inverary	0.08	0.2	0.12	150
Creag Dhubh to Dalmally 275kV Connection	483.42	531.76	48.34	10
Creag Dhubh to Inveraray 275 kV Overhead Line	209.8	230.8	21	10
Inveraray to Taynuilt (ITE/ITW) Tie-In to Creag Dhubh Substation	15.64	17.2	1.56	10
Peterhead Substation Upgrade	30.01	40.05	10.04	33
North Argyll 275 kV Upgrade Peatland Restoration Access Track	24.49	26.94	2.45	10
Protection Modernisation - Brechin	0.36	0.43	0.07	19
<b>Total</b>	<b>763.8</b>	<b>847.38</b>	<b>83.58</b>	<b>11</b>

## Local environmental enhancements

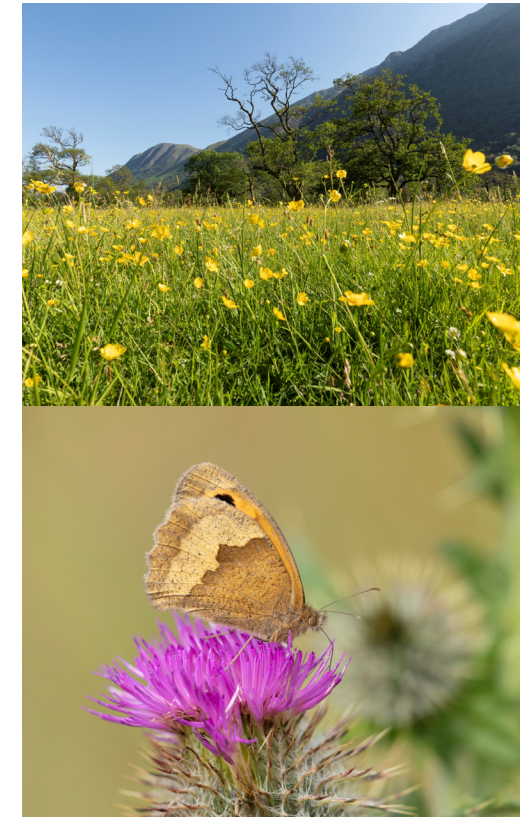
- Over 370 hectares of woodland planted
- Over 25 tonnes of litter picked
- Over 180 students engaged in environmental education

Over the last year, we supported the planting of 243 hectares (ha) of native woodland in Attadale (near Loch Carron), Dorma (Corrieshalloch Gorge), Baddens (near Lochgilphead) and Glenshellach (Oban), and 127 ha of predominantly native broadleaf planting in Achlian near Dalmally. The costs of these enhancements are included in the project costs so we are currently unable to provide details on the monetary investment of each enhancement. We aim to be able to collect and disclose this information in the future.

We entered a partnership with SCOTLAND: The Big Picture, a rewilding charity, to support the organisation's Northwoods Rewilding Network, a Scotland-wide chain of landholdings committed to nature recovery. Northwoods provides funding and guidance to landowners and land partners throughout the country who share a vision for an ecologically restored landscape.

### Local environment enhancements<sup>8</sup>

Project name	Location	Description of local improvement	Environmental benefit	Timescales
Achlian	Near Dalmally	127 ha of predominantly native woodland	<ul style="list-style-type: none"> <li>• More native species</li> <li>• Climate</li> </ul>	Completed Late Spring 2024
Attadale	Near Loch Carron	125 ha of native woodland planting	<ul style="list-style-type: none"> <li>• More native species</li> <li>• Climate</li> </ul>	Completed Early winter 2024/25
Baddens	Lochgilphead	22.1 ha of native woodland planting	<ul style="list-style-type: none"> <li>• More native species</li> <li>• Climate</li> </ul>	Completed Early Spring 2025
Glenshellach	Oban	30.27 ha of native woodland planting	<ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Climate</li> </ul>	Completed Early Spring 2025
Dorma	Corrieshalloch Gorge	66 ha of native woodland planting	<ul style="list-style-type: none"> <li>• More native species</li> <li>• Climate</li> </ul>	Completed Winter 2024/25
Annual beach clean in partnership with 'Turning the tides'	Sandford Bay	Over 25 tonnes of litter and debris removed from 600m of shoreline	<ul style="list-style-type: none"> <li>• Pollution mitigation</li> </ul>	August 2024
Volunteer day with Friends of Loch Lomond and the Trossachs	Three Lochs Way	Cleared overgrown vegetation, trimmed back foliage to improve accessibility	<ul style="list-style-type: none"> <li>• Access to nature</li> </ul>	October 2024
Lands25 Science, Technology, Engineering and Mathematics (STEM) event	Lochgilphead Joint Campus	Members of the consents and environments team engaged with 180 pupils from across 10 schools	<ul style="list-style-type: none"> <li>• Environmental education</li> </ul>	March 2025



## Environmental incidents

We report our incidents via EcoOnline, a safety and environment reporting tool for staff and contactors across our active projects and operational sites. During 2024/25, we reported seven environmental incidents to the relevant regulator. There were no actions taken by any regulator in response to these reported incidents. During this period, none of our reported incidents were categorised as 'severe'.

### Environmental incidents

	Unit	2021/22	2022/23	2023/24	2024/25
Reported to regulator	Number	13	12	14	7

## Oil management

Over the last year, we have improved our asset data systems and data quality and have expanded the asset coverage due to network growth and evolving technologies. In 2024/25, we updated our reporting to include all oil-insulated assets. The table below includes retrospective calculations of total oil volumes based on the improved data availability and asset types included in the calculation.

During 2024/25, we introduced 15,267 litres and 1 litres of oil to our transformer and cable asset classes respectively due to losses. Our oil loss rate was 0.15% of total installed volume—an increase of 0.09% from last year.

### Oil Volumes

	Unit	2021/22	2022/23	2023/24	2024/25
Operational equipment	Litres	10,188,565.20	10,255,581.30	10,479,329.70	10,518,060.40
Cable oil top up	Litres	0.00	778.00	0.00	1.00
Transformer oil top up	Litres	6,006.75	2,462.50	6,065.75	15,267.00

## Looking ahead

This year, we will complete our work with other TOs on nature impacts, using the findings to inform design and development decisions.

To further our commitment to deliver 10% BNG on all eligible projects, we will update governance, funding and monitoring and maintenance approaches related to nature restoration. We will also deliver further off-site biodiversity work.

Additionally, we will collaborate with other TOs and nature experts to inform the development and adoption of a Marine Net Gain metric. Over the next year we intend to commission the early elements of our marine restoration programme, designed to ensure we undertake the right kind of restoration in the right place to give us the best chance of success. The work will encompass research into appropriate species, cultivation techniques, identification of delivery partners and the creation of an education programme to maximise the reach and impact of the techniques and skills we develop. We will continue to socialise our approach to marine restoration and will work to establish partnerships to deliver on our ambitions.





# Communities

In 2024/25, we further improved our stakeholder engagement, receiving our highest ever AccountAbility rating against their AA1000 Stakeholder Engagement Standard. This rating reflects the intensive efforts of our community engagement teams who hosted or attended over 150 events in the past financial year. We successfully launched our Regional and Local Community Benefit Funds (CBFs) which saw millions of pounds allocated to organisations working to improve their communities in various ways.

A number of partnerships are in development to deliver our sector-leading Housing Strategy for our Pathway to 2030 projects. Initial work to deliver a range of accommodation solutions including new builds and refurbishments is underway.

We finished all our VISTA projects in 2023/24, as noted in our RIIO-T2 targeted sustainability outcomes. See Visual Amenity section for more information.

## Progress against RIIO-T2 Sustainability Business Plan Commitments (Communities)

Sustainability outcome	2021/22	2022/23	2023/24	2024/25
Complete detailed VISTA project designs and prepare Ofgem applications for selected projects by 2023/24				



## Community engagement

- Over 150 stakeholder events and meetings
- 95% AccountAbility rating

## Our approach

During 2024/25, our teams engaged extensively in the north of Scotland. The development of significant infrastructure upgrades has provided an opportunity to engage with communities and stakeholders in areas most impacted by our proposals.

SSEN Transmission is a stakeholder-led business, so working closely with local communities and wider stakeholders to inform and shape the development of our projects is extremely important to us. Our project teams held 142 consultation events, 19 public meetings and 10 community liaison groups to share plans and allow communities to provide feedback to help us fully understand their views and concerns. Community consultation has led to significant changes to our proposals, allowing us to minimise and mitigate potential impacts on both people and places.

Engagement has extended beyond events to include digital channels, statutory and non-statutory Community Liaison Groups, and house visits to meet directly with concerned residents.

We will continue to develop and enhance our engagement as our projects move from development into delivery. We are currently drafting a community engagement strategy that will help drive innovation, sustainable practice and collaboration with our community stakeholders. We will continue to develop and enhance our engagement as our projects move from development into delivery. We are currently drafting a community engagement strategy that will help drive innovation, sustainable practice and collaboration with our community stakeholders.

## Working with stakeholders to deliver a network for net zero

In 2024/25, SSEN Transmission engaged extensively with government, regulators, and stakeholders to advocate for policy and regulatory changes needed to support our business, generation customers, communities, and the wider energy sector.

We remain actively engaged in the delivery of our Pathway to 2030 projects, making the case for accelerated investment in the transmission network as a critical enabler of the UK and Scottish Governments' climate and energy security ambitions. This included a range of political engagement, from bilateral meetings and site visits to parliamentary exhibitions and receptions, all aimed at showcasing the positive impacts of our investment in the north of Scotland.

Our Independent Stakeholder Group (ISG), formed in 2020, is comprised of six individuals with cross-industry experience and has provided SSEN Transmission with expert reviews, recommendations and challenges on our policies, processes, and plans. The ISG provided a third-party review of our RIIO-T3 business plan, ensuring that customer and stakeholder views are included in our work. As such, the ISG paid particular attention to the plans for energy systems to further UK decarbonisation initiatives at as low a cost as possible to the consumer as well as the maximisation of community benefits within our RIIO-T3 plans. As we work to accomplish our RIIO-T2 goals and targets in 2025/26, we will continue to regularly engage with the ISG for impartial reviews of our business decisions.



ISG Members on 2024 site visit

## Top AccountAbility rating for fourth consecutive year

We received a top stakeholder engagement rating for the fourth consecutive year, following a comprehensive audit conducted by leading global consulting and standards firm, AccountAbility. Their AA1000 Healthcheck includes a thorough review of stakeholder engagement practices and internal and external stakeholder interviews.

We scored 95% on the AccountAbility Stakeholder Engagement Maturity Ladder – up 7% from last year – placing us firmly in the 'Advanced' category. This rating comes as our business moves into post-submission engagement for our £22bn 'Pathway to 2030' investment programme.

The AA1000 Stakeholder Engagement Standard is considered the 'gold standard' in stakeholder engagement accreditation, and our performance confirms we have maintained our RIIO-T2 commitments to deliver 'Advanced' status.





## Community Benefit Fund

- **73 organisations supported**
- **Over £2,250,000 awarded**

In September 2024, we launched our first Community Benefit Fund (CBF) ahead of the publication of UK Government guidance, published in March 2025. All new eligible transmission infrastructure will contribute to future CBFs, ensuring that communities benefit from new electricity infrastructure.

SSEN Transmission offers two different types of CBFs:

- Regional Funds support strategic projects across the north of Scotland with broad community impact.
- Local Funds support communities near new infrastructure.

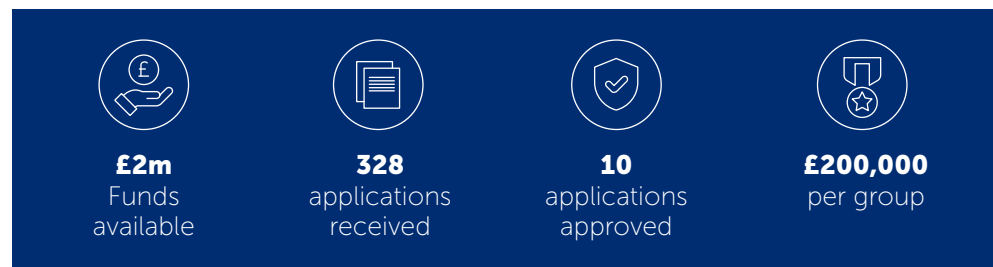
## Regional Funds

The first regional fund launched in September 2024 with £2 million. This fund targets strategic projects that deliver significant and lasting impacts across the north of Scotland. Priority areas include:

- People: Enhancing skills, training, and employability.
- Place: Supporting community and cultural initiatives.
- Reducing fuel poverty.

An independent panel, led by former Scottish Minister and Highland Convener Peter Peacock, reviewed 328 applications received requesting almost £50m. Applications were assessed based on factors including alignment with one of the three selected themes listed above, as well as anticipated impact, innovation, community or sector reach, deliverability, and value for money.

### Regional Fund statistics



See the Regional Fund awards table in Appendix 2 for full data.

## Supporting vulnerable Scottish youth

Supporting young people in some of the most deprived areas across Scotland, the Growing2gether programmes fill a gap in current provision, by providing a group-based intervention aimed at the most vulnerable. This support is delivered across two programmes – the Nursery Mentoring Programme and the Community Programme. The core of these programmes is the use of positive psychology, with evidence showing links to improved confidence, self-esteem and mental health.

The Nursery Mentoring Programme pairs young people with nursery-aged children, giving them valuable work experience, a sense of responsibility, and the chance to earn a SCQF Level 4 Qualification in Personal Development. The young people are supported by two trained facilitators throughout the placement, and attend peer group sessions, led by these facilitators, to support their learning.

The Community Programme is led by the young people themselves – empowering them to tackle an issue they care about by designing and running a project that creates real change in their local area. Over a 16-week period, the young people research, plan, budget for, advertise and implement a project key to their local community.

The award will fund facilitator and delivery costs for the programmes.



Growing2gether programme mentors



## Local Fund

The first Local Fund launched in November 2024. The East Coast 400kV OHL upgrade project awarded 63 community projects with funding of up to £5,000 under the theme of improving health and wellbeing. Projects providing benefits to communities close to the upgraded line in Aberdeenshire, Angus, Perth & Kinross, and Clackmannanshire received grants totalling £252,000. All projects funded were within 10km of the upgraded line, selected by a locally representative independent panel.

In 2025/26, more Local Funds will be developed in partnership with local communities, ensuring allocations align best with local priorities. As with funds allocated in the past year, upcoming decisions will be made by an independent panel comprised of local people who best represent the interests of the communities involved. SSEN Transmission's dedicated Community Investment team will be available to support the panel.

### Local Fund statistics



**242**

Applications  
received



**£4,000**

Average funds  
allocated per  
group



**£252,000**

Funds  
available



**63**

Applications  
approved



### Regions Served

Aberdeenshire, Angus, Perth and Kinross, Clackmannanshire

## Equipping First Responders

Inverurie First Responders are a voluntary group who are called upon by the Scottish Ambulance Service to provide a quick response to medical emergencies across an area in Aberdeenshire that serves over 300,000 residents. Responders bridge critical gaps by stabilising patients before the arrival of ambulance crews, often being the first on the scene to emergencies through its volunteer responders.

The SSEN Transmission East Coast Upgrade Fund awarded £4,703 to the group to purchase PPE and equipment, including a specialised CPR training mannequin that can be used with a defibrillator to provide first aid training to groups across the area. This equipment is essential to the safety and effectiveness of the local volunteer Community First Responders and ensures the group can continue to serve the community with confidence, professionalism, and the highest standard of care.



Inverurie First Responders will use the funding to purchase much needed equipment.



## Visual amenity

Visual Impact of Scottish Transmission Assets (VISTA) projects have concluded, following the completion of six projects in 2023/24. We are proud of the work done to underground 15.1 km of 132kV overhead lines within National Parks and National Scenic areas since 2021. No projects have been progressed this year due to challenges with market conditions, supply chain and landowner agreements. We do, however, remain committed to reviewing opportunities for future projects. We will continue to work with our communities to explore routes to least possible disruption from our infrastructure.

### VISTA metrics

	UNIT	2021/22	2022/23	2023/24	2024/25
Removal of overhead lines	Km	7.3	3	4.8	0
Non-technical mitigation projects started in year	Number	1	0	0	0
Non-technical mitigation projects	£m	0.168	0	0	0

## Looking ahead

As a stakeholder-led business, we will continue to engage meaningfully with the communities impacted by our current and proposed infrastructure and aim to maintain our AA1000 accreditation. Throughout the 2025/26 financial year, we will continue to identify opportunities to deliver tangible benefits for the communities hosting our projects to leave a positive legacy. We also plan to progress on the delivery of our Housing Strategy by securing a housing portfolio for our Pathway to 2030.





# People

Our people are at the heart of our business. During 2024/25, SSEN Transmission added 561 colleagues to our workforce. At the close of 2024/25, our staff included 1,984 colleagues, supported by a further 341 colleagues employed within the SSE Group corporate partnering teams (including Finance, Procurement, IT and Human Resources).

We are pleased to report continued progress against our RIIO-T2 Sustainability Outcomes related to People. As of March 2025, our Diversity Return Information increased by 47% from September 2022, allowing us to better understand individual needs of our workforce. Additionally, over the last financial year, we decreased our median Gender Pay Gap by 2.4%.

## *Progress against RIIO-T2 Sustainability Business Plan Commitments (People)*

Sustainability outcome	2021/22	2022/23	2023/24	2024/25
Achieve a more representative workforce that reflects the local communities we serve by developing improved diversity and inclusion metrics by 2023/24				
Achieve a more inclusive working environment by 2023/24				

## One sustainable workforce

- **Achieved a Sustainable Engagement Score of 89%**
- **Launched 12 new career pathways**
- **Engaged over 1,400 pupils through the Engineering Development Trust**

Aligned with the business' sustainability priorities, the SSEN Transmission "Sustainable People Strategy" focuses on the following themes:

- A happy & healthy workforce
- One inclusive & engaged team
- Empowered, inspirational leaders
- Right people, right skills

Every two years, we participate in a comprehensive "Great Place to Work" colleague engagement survey, with a shorter pulse survey conducted in between. In 2024, SSEN Transmission achieved a Sustainable Engagement Score of 89%, based on an 87% response rate. Action plans have been developed at both the business and local directorate levels, focusing on three identified continuous improvement themes: cultural engagement, ways of working, and strategic engagement.



SSEN Transmission graduates



## Supporting our people

We are committed to equipping our people with the skills, knowledge and support needed to manage and grow SSEN Transmission's future network. We aim to create conditions for all colleagues to perform at their best and to enable long-term careers. Every colleague is seen as "talent" with potential for long-term development.

In 2024/25, we celebrated a range of successes:

- Delivered five Enabling Career Programmes, with 18% of participants stepping into new roles
- Strengthened succession planning for key leadership positions, ensuring strong talent pipelines
- Developed and launched 12 new career pathways to support progression and critical role development
- Invested over £1m in external training, including a Commercial Speaker Series, and ran a range of tailored internal learning sessions
- Increased female workforce representation from 28.3% to 30.0%

We enhanced Inclusion & Diversity initiatives, including:

- Returnship program for colleagues returning from extended leave through family flexible policies
- A third Reverse Mentoring Programme cohort to promote diverse thinking
- Pilot of the 'Individual Support Plan' within our Trainee Group to support colleagues learning and focusing at their best
- Memberships with Women's Utility Network and Women's Engineering Society to support our ambition of enhancing our gender balance

Diversity Return Information rose from 38% (2022) to 85% (2025), improving our workforce demographic insights and enabling us to tailor our people activities accordingly. Additionally, our median Gender Pay Gap has decreased from 18.70% (2023/2024) to 16.4% (2024/2025).

This is underpinned by the creation of a Strategic Workforce Plan, with each directorate having clear and coordinated actions to be taken to meet our future workforce requirements. Additionally, as part of our RII0-T3 business plan submission, we published a [Workforce Resilience Strategy](#) outlining our strategy to grow, develop and strengthen our workforce as our network continues to expand.



## Increasing Accessibility and Understanding

During the 2024/25 financial year, the Disability, Neurodiversity and Chronic Health (DNACH) Belonging Group drafted a Support E-book. The DNACH Support E-Book was made available to colleagues across the business in July 2025 and seeks to drive improved employee engagement, increased awareness of hidden conditions, and a stronger sense of belonging within the transmission workforce. Through the development of this E-book, we are embedding accessibility into internal communications and team conversations, ensuring colleagues with chronic health conditions, disabilities, or neurodiverse traits feel represented and supported within the business.



### DNACH Health Support e-Book

The Disability Neurodiversity and Chronic Health Belonging Group Support Cards



## Industry-leading Certification

Our Health and Wellbeing team worked to implement new structures and processes around mental and psychological wellbeing. The team continued to support our Mental Health First Aiders and improve existing structures and frameworks such as the Wellbeing Champions Network. This outstanding work culminated in SSEN Transmission achieving ISO45003 certification, the world's first international standard focused on psychological health and safety at work. Auditors praised the business for this sector-leading achievement and plan to use SSEN Transmission's work on wellbeing as an example of industry best practice.



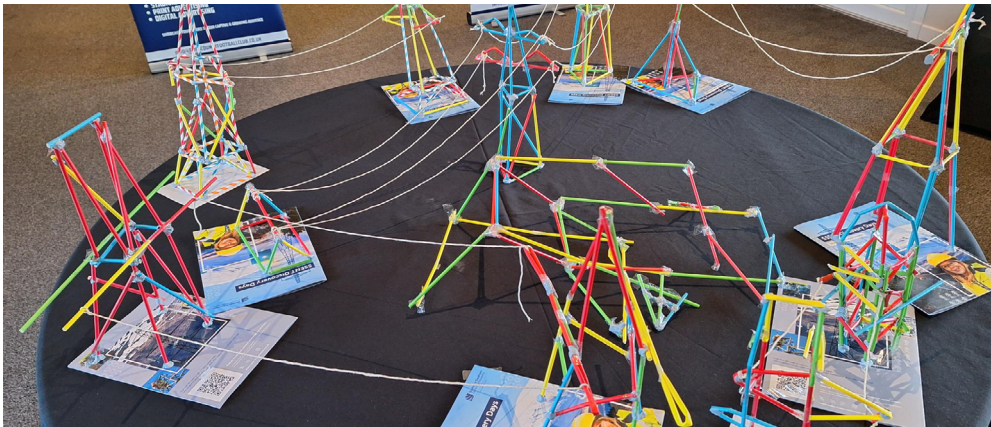


## Growing our workforce

Growing our own talent is a top priority. We have expanded inclusive Pipeline programs, from apprenticeships to Graduate programmes. Our partnership with the '5% Club' has been recognised with a Platinum award for the percentage of our workforce in earn-as-you-learn roles, alongside the 5% Club UK National Employer "Earn & Learn" award for Quality. Additionally, we offer wider attraction through programs like the STEM Returners Programme, which draws female returners back into the industry.

Pipeline participation grew from 19 participants in 2021 to over 200 in 2024/2025. We hosted two large-scale recruitment events in early 2025 to meet potential candidates and guide them through the application and selection process. Our onboarding program, "Transmission Welcome", is fully integrated for all colleagues, and is supplemented by core 'Building Blocks' sessions with introductions to regulatory, financial, and industry knowledge.

We actively work with schools and universities to give students insights into the work we do, our people and our culture. In 2024/25, our Engineering Development Trust Industrial Cadets engaged over 1,400 primary and secondary school pupils. Our partnership combines our industry expertise with EDT's commitment to youth development and helps to inspire, educate and prepare young people for careers in science, technology, engineering and mathematics. We also hosted a Discovery Days session to educated young people about early careers opportunities in the energy sector. The Dingwall session, hosted in February 2025, saw over 30 students engaged over the two days. Throughout the year, we participated in an additional 118 engagements with primary and secondary schools and universities, covering a range of activities such as career fairs, guest lectures and employability sessions.



Engineering week at the Aberdeen Science Centre



S4-S6 students hearing from apprentices and trainees at the Dingwall Discovery Days



## Volunteering

We are committed to leaving a lasting positive legacy by supporting communities and identifying ways in which we can give back to the communities within which we operate. Communities and local organisations are invited to request volunteering support from our employees via our [Volunteering Page](#).

Alongside building local career pipelines, we also work to support the communities in which we operate with our time and skills. All our employees are entitled to at least one yearly volunteering day. This can be used to help charities or non-profits selected by the employees themselves or to support organisations in our operating area that have requested assistance. In February 2025, SSEN Transmission launched a new website that allows communities to submit requests for volunteers. The request system allows us to support local groups in a way that is most useful to them. We aim to fulfil requests wherever possible and to increase the number of staff using their allotted volunteering days.



SSEN Transmission volunteers tree planting native species at Dun-coilich

## Looking ahead

In 2025/26, SSEN Transmission will create a Just Transition Workforce plan to set out our approach to attracting, retaining and developing our workforce consistent with Just Transition principles. In 2025/26, we also plan to develop and roll out a refreshed talent and attraction programme to grow the skilled workforce needed to deliver our commitments for RIIO-T3 and beyond. We will continue to deliver a programme of inclusion and diversity focused campaigns and activities.



# Procurement

During 2024/25, we strengthened our supplier sustainability requirements, improving our regular contractor sustainability engagement, particularly on our Accelerated Strategic Transmission Investment (ASTI) projects. This allows for regular updates from our contractors on carbon, waste and social value. This enables early intervention to take advantage of sustainability opportunities, minimise risks and highlight best practice across our supply chain.

Efficient resource use and waste reduction are central to our Procurement focus area. During 2024/25, we made significant improvements to how we manage project-level waste data, enabling us to report on large capital project performance for the first time. We can now demonstrate that we are on track to deliver our T2 goals of zero waste to landfill (excluding compliance) and achieving a recycling, recovery and re-use rate of >70% across our waste streams by 2025/26. Overall recycling, recovery and reuse is now at 99.73%, with just 0.23% of waste going to landfill.

## *Progress against RIIO-T2 Sustainability Business Plan Commitments (Procurement)*

Sustainability outcome	2021/22	2022/23	2023/24	2024/25
Achieve zero waste to landfill (excluding compliance waste) by 2025/26				
Achieve a recycling, recovery and re-use rate of >70% across our waste streams by 2025/26				
Achieve a 25% representation of approved suppliers based in the north of Scotland by 2025/26				

All data required by Ofgem for our Integrated Joint Venture projects with National Grid Electricity Transmission (Eastern Green Link 2) can be found in Appendix 4.

## Supply chain

- **100% of suppliers adhering to our Sustainable Procurement Code**
- **26% of suppliers located in the north of Scotland**

In 2024/25, we updated our supplier sustainability requirements to better align with our Sustainability Strategy, our RIIO-T3 Business Plan, and the PAS 2080 standard for carbon management in buildings and infrastructure. Suppliers have been engaged on the updated requirements which mandate the development of carbon management plans and social value plans for all our large capital projects. Our contractors are required to share regular updates on progress against these plans and regular engagement supports continuous improvement.

We also host events to engage the supply chain more broadly, such as our Social Value Supply Chain Engagement Day in April 2025. These events allow us to communicate best practices and discuss any blockers our contractors might be facing.

Carbon management plans often involve the use of low carbon alternatives to traditional materials. Our business works with contractors to determine opportunities for low carbon materials.

## *Sustainable procurement metrics*

Sustainability outcome	Unit	2021/22	2022/23	2023/24	2024/25
Proportion of suppliers (by value) adhering to our sustainable code	%	100	100	100	100
Approved suppliers located in the north of Scotland	%	25	25	25	26
Percentage of suppliers (by value) that have a policy on sustainable procurement issues	%	No data	No data	No data	71

## Sustainable resource use

- **99.73% recycling, reuse and recovery**
- **Only 0.23% of waste to landfill**

In 2024/25, we improved the way we manage waste data from our large capital projects, significantly improving the quality, accuracy, and completeness of this data, and enabling us to act on it for the first time. Combining this project-level waste data with our existing operational waste data shows that we are very close to achieving our zero waste to landfill target and are out-performing our >70% recycling, recovery and reuse target with 99.73% of waste heading to these destinations.

### 2024/25 Waste management performance<sup>9</sup>

Waste destination	Operational waste (tonnes) <sup>10</sup>	Operational waste (%)	Project waste (tonnes)	Project waste (%)	Total waste (tonnes)	Total waste (%)	Target	Performance
Recycling	108.05	66.50	33071.47	71.37	33179.52	71.36%	Achieve a recycling, recovery and re-use rate of >70% across our waste streams by 2025/26	<b>99.73% recycling, recovery and re-use rate</b>
Re-use	0.00	0.00	9250.00	19.96	9250.00	19.89%		
Recovery	54.10	33.30	3890.03	8.40	3944.13	8.48%		
Landfill	0.32	0.20	106.14	0.23	106.46	0.23%	Achieve zero waste to landfill (excluding compliance waste) by 2025/26	<b>0.23% non-compliance waste to landfill</b>
Other Disposal <sup>11</sup>	0.00	0.00	18.25	0.04	18.25	0.04%		
TOTAL	<b>162.48</b>	<b>100</b>	<b>46335.89</b>	<b>100</b>	<b>46498.37</b>	100%		

<sup>9</sup>Waste data is collected and managed in line with our internal Waste Management Standard. Operational waste data is sourced directly from waste contractors and managed at SSE Group level. Project waste data is sourced from our supply chain partners through an online portal and analysed internally. All waste data is subject to periodic audit.

<sup>10</sup>We use the terms "operational waste" to refer to waste from offices, depots and other operational sites, and "project waste" to refer to waste generated through the construction of our assets.

<sup>11</sup>Other disposal" refers to incineration without energy recovery. It is listed separately here in line with best practice reporting as it is neither landfill nor recycling, recovery or re-use.



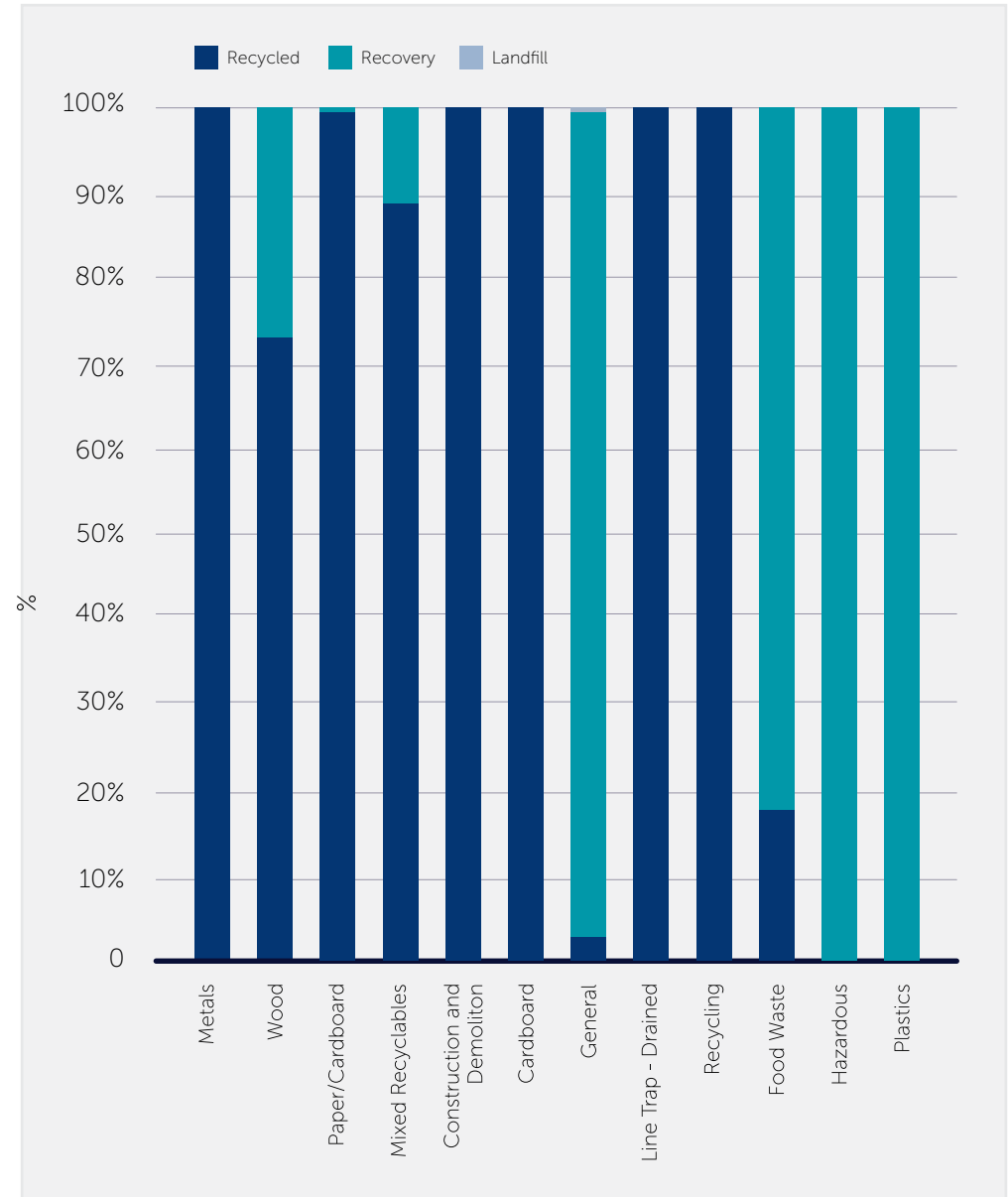
## Operational waste

Operational recycling and diversion targets are set annually by the SSE Group, reviewed at the Environment Subgroup and updated in the SSE Environment Vision document. Our most recent Environment Vision targets for 2024/25 are to divert 95% by tonnage from landfill and recycle 55% by tonnage.

SSEN Transmission outperformed the SSE Group 2024/25 targets, diverting 99.8% and recycling 67% by tonnage. The increase in recycling from 2023/24 has been supported by the sourcing of additional in scope data received in relation to metal recycling in 24/25.



*Operational Waste by source and destination (%)*



See the Operational waste tables in Appendix 2 for full data.



## Resource use avoidance with strategic spares

A transformer fault at the Fetteresso substation left the Mid Hill windfarm unable to generate electricity. Given that no direct replacement was immediately available, we instead installed a strategic spare from Rothienorman substation. Though we needed to implement some changes to accommodate the strategic spare, such as changing the connection arrangements and protection scheme as well as making a direct connection from the replacement transformer to the 33kV busbar, we were able to reuse many materials in the process. We reused the existing plinth and earthing transformer and installed a marshalling cabinet adjacent to the transformer to allow us to reuse the existing multicore cables.

Our actions at the Fetteresso substation sped up restoration works, reconnecting supply to the Mid Hill windfarm and enabling it to keep generating renewable electricity. The use of the strategic spare transformer also minimised the cost and material impact of equipment that would soon be phased out in the Fetteresso Substation upgrade project.



Works at Fetteresso during the fault repair

## Project waste

Following a data improvement project in 2024/25, we can share data on the waste generated by our large capital projects for the first time. This data is gathered from all construction projects with a value of over £500,000 and/or a duration of more than eight weeks. Data shows that we are meeting our target of >70% recycling, recovery and reuse across all waste streams and that only 0.23% of the 46,336 tonnes of waste generated by our projects went to landfill in 2024/25.

We intend to continue reporting on project waste in future Annual Sustainability Reports and to collaborate closely with supply chain partners to continue to minimise waste to landfill and maximise recycling, re-use and recovery.

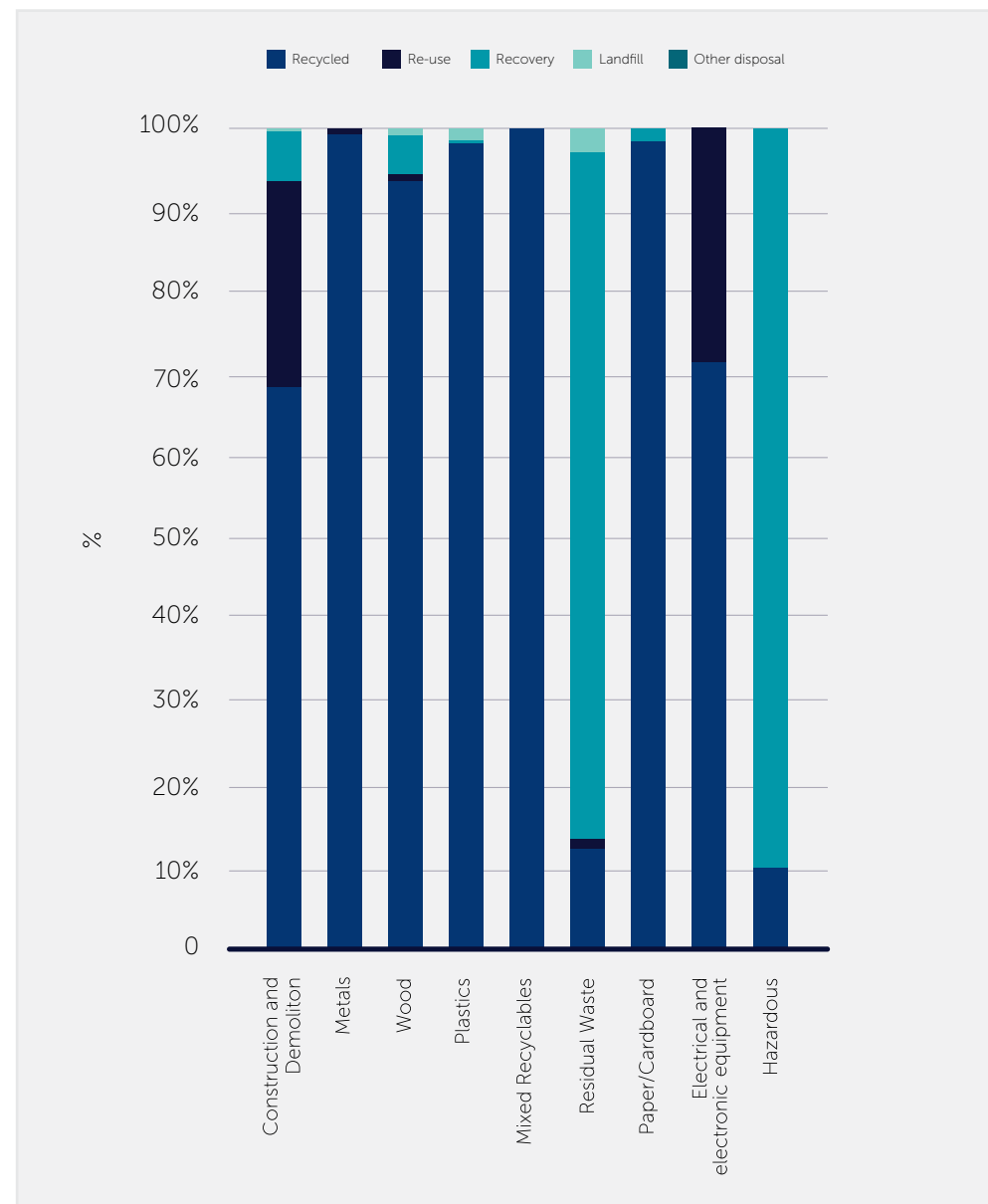
See the Project waste tables in Appendix 2 for full data.

## Looking ahead

In the next year, we will streamline supplier key performance indicators across the business and strengthen the systems and processes to improve efficiency and effectiveness in the sustainable procurement space. We plan to increase our engagement with suppliers on sustainability topics and use this heightened engagement to identify sustainability leadership opportunities.

In the waste and circular economy space, we will continue striving to meet our T2 target of zero avoidable waste to landfill and 70% recycling rate and begin our work towards an 80% recycling rate by 2030. Improvements to waste data collection processes have allowed us to interrogate our data and challenge supply chain partners and waste management partners to demonstrate performance improvements<sup>12</sup>. Looking ahead, we anticipate that an audit of our waste data and the development of a Circular Economy Roadmap across SSE will identify further opportunities to improve resource efficiency, waste prevention, and the diversion of waste from landfill.

Project waste by source and destination (%)



<sup>12</sup>It is not possible at present to report on the key materials consumed by our business but we aim to continue to improve our data collection, management, analysis and reporting in the T3 period.



# Performance

In 2024/25, we assessed our sustainability data collection processes and methods with the aim of streamlining our data systems and improving our sustainability reporting in line with global best practice standards. This work has involved colleagues, suppliers and other stakeholders. Additionally, the Sustainability and Digital teams began collaborating to digitise the tools used for sustainability assessments on our large capital projects, enabling the identification of sustainability impacts, risks and opportunities at every project stage and the management of these. The year also saw updates to our sustainability governance and delivery structure to support the delivery of our Sustainability Strategy and Action Plan.

We kicked off a project to deliver a comprehensive strategy for how we gather, store, process, access and analyse sustainability data. Like many comparable businesses, our data is held in multiple different systems, often siloed and requiring manual processing. The Sustainability Data Architecture project aims to detail all systems, processes, and data flows within the sustainability space and to provide design recommendations to support the efficient and effective delivery of our sustainability goals.

## Innovation

As we expand and upgrade our network, we are constantly looking for new and innovative ways to improve our performance and leave a positive legacy in the areas in which we operate. During the 2024/25 financial year, we continued work on innovation projects in an effort to support environmental protection and to positively contribute to the energy transition.

### 220kV Single Circuit Low Profile Designs

In March 2024, we kicked off an NIA project to develop a new 220kV low-profile steel pole design. Existing low profile OHL options do not have suitable capacity for the electric loads we need to transport. Alternative transmission structures such as steel lattice towers, underground cables and other options lead to an increase in construction costs compared to traditional 132kV wood or steel pole designs. This innovation project aims to create a design with the visual aesthetic, reliability standards, insulation levels, and construction methods associated with wooden poles.

Building upon the success and learnings of a previous NIA project to design a new 132kV Low Profile Steel Pole, this project aims to provide a solution for connecting large single-point windfarms or aggregated renewable energy connections at low to medium altitudes. Aiming to develop a new design that will be smaller in comparison to steel lattice towers, the expected project outcomes include savings in materials such as concrete and steel, and therefore reductions in carbon emissions. Projections indicate the new proposed 22-kV low profile structures will offer cost savings ranging from £2.5 to £9.5 million for all identified lines by the end of the RII0-T3 regulatory period, in contrast to conventional steel lattice towers. Over the assets' lifespans, an average of £34 million in cost savings can be achieved through the implementation of the 220kV design<sup>13</sup>. The project is currently assessing and developing different design styles using expertise from in the business and the project partners. Additionally, we anticipate the smaller design will provide communities hosting infrastructure with an alternative option that reduces the visual impact.

**Find out more:** [220kV Single Circuit Low Profile Design | ENA Innovation Portal](#)

<sup>13</sup>Discounted, risk-adjusted, 2018 real

## Pollution Monitoring

The accumulation of pollutants is a serious issue for electric utilities as it can significantly increase the risk of network outages. Currently, there is no pollution measurement information available across the transmission network. In July 2023, we began a pilot to monitor environmental pollution and its impact on our critical infrastructure as such information could help mitigate or avoid risks of network outages.

Through this NIA project, we have installed sensors on a section of 132kv OHL as a case study. These sensors will capture data on leakage on insulators and share this information with our teams remotely. We will analyse the data to characterise the risk of equipment degradation due to pollution and aim to factor conclusions into the design and maintenance of OHLs in pollution-high-risk areas of the network. The pilot was ongoing through 2024/25 with the first batch of results to be analysed in the fall of 2025.

If the system can reduce the number of unplanned outages and/or the need to carry out maintenance, costs for consumers could be reduced. Potential financial benefits of risk reduction are estimated to be at least £108k<sup>14</sup>. In addition to the financial benefits of reducing risks of pollution accumulation, reducing the prevalence of unplanned network outages will also have a positive environmental impact. Fewer outages will allow more renewable energy to flow through our grid, resulting in a reduction of the average carbon intensity of the grid. The potential emissions savings over a 45-year infrastructure lifecycle may reach 86.9 tCO<sub>2</sub>e.

Find out more: [Pollution Monitoring | ENA Innovation Portal](#)



*Pollution monitoring project*

## Looking ahead

Over the course of the 2025/26 financial year, we will complete our assessment of our current data systems and processes and create a roadmap for improvement. Additionally, we will create a plan to align our sustainability reporting with global best practices, including nature-related reporting. We will also begin engaging with experts on planetary boundaries as we work towards assessing our own impacts on planetary boundaries by 2030.



# Appendices

## Appendix 1: Acronym Glossary

Acronym	Full Term
ASAP	Annual Sustainability Action Plan
ASTI	Accelerated Strategic Transmission Investment
BEIS	(Department for) Business, Energy & Industrial Strategy
BNG	Biodiversity Net Gain
CBF	Community Benefit Fund
CCC	Committee on Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DG	Delivery Group
DNACH	Disability, Neurodiversity and Chronic Health
DNO	Distribution Network Operator
ESG	Environmental, Social, Governance
EDT	Engineering Development Trust
EV	Electric Vehicle
GHG	Greenhouse Gas
GIS	Gas-insulated Substation
HVDC	High-voltage Direct Current
HVO	Hydrotreated Vegetable Oil
IIG	Insulation and Interruption Gas
ISG	Independent Stakeholder Group
NIA	Network Innovation Allowance
OHL	Overhead Line
OTPP	Ontario Teachers' Pension Plan
QoC	Quality of Connections

Acronym	Full Term
RAG	Red, Amber, Green (rating)
SAMS	Scottish Association of Marine Science
SAP	Sustainability Action Plan
SAAP	Sustainability Assessment and Action Plan
SDGs	Sustainable Development Goals
SBT(s)	Science Based Target(s)
SBTi	Science Based Targets Initiative
SLLPs	Sustainability Linked Loan Principles
SSG	Sustainability Steering Group
STEM	Science, Technology, Engineering and Mathematics
SWI	Sustainability Works Information
T&D	Transmission & Distribution
tCO <sub>2</sub> e	Tonnes carbon dioxide equivalent
TEC	Transmission Executive Committee
TO(s)	Transmission Operator(s)
VISTA	Visual Impact of Scottish Transmission Assets
WUN	Women's Utility Network
WES	Women's Engineering Society

## Appendix 2: Sustainability Data Tables

### Connections

	Unit	2021/22	2022/23	2023/24	2024/25
New low carbon generation connections	GW	1.1	1.4	0.1	1.6
Low carbon share of generation	%	84	88	88	89
Connection offers made <sup>15</sup>	Number	161	220	369	272
Connection offers accepted <sup>16</sup>	Number	99	139	245	203
Quality of connections ODI score	Score (1-10)	8.1	8.6	8.6	8.7
Quality of connections ODI target		7.7	7.7	7.7	7.7

### Transport emissions<sup>17</sup>

	Unit	2018/19	2021/22	2022/23	2023/24	2024/25
Emissions per vehicle	tCO <sub>2</sub> e	3.46	2.99	2.43	2.20	2.14
Change against baseline	%	0	-14	-30	-36	-38

<sup>15</sup>This data does not include Affected Transmission Owner Connection Offers or Agreement to Vary/Notices where there was a charge initiated by us.

<sup>16</sup>This data is inclusive of initial applications and modified applications received in 2024/25.

<sup>17</sup>Updates to past RIIO-T2 and base year data due to reclassification of vehicle types.



## Scope 1 and 2 emissions

Emissions in tCO <sub>2</sub> e	Specific area	Emissions scope	2018/19 base year	2021/22	2022/23	2023/24	2024/25
Building energy use	Electricity <sup>18</sup>	2	338	76	5	70	6
	Natural gas	1	14	5	5	2	0
	Substation electricity (estimated) <sup>19</sup>	2	6,849	5,253	4,914	5,586	4,992
Operational transport <sup>20</sup>	Transport <sup>21</sup>	1	556	675	795	1,012	1,146
	Conventional company vehicles mileage <sup>22</sup>	1	343	122	113	194	216
	Electric company vehicles mileage <sup>23</sup>	2	0	8	24	76	92
Fugitive emissions	IIG <sup>24</sup>	1	1,990	2,871	4,719	2,575	1,786
Fuel combustion	Generator Diesel	1	100	0	42	26	26
	Hydrotreated Vegetable Oil (HVO) <sup>25</sup>	1	0	0	0	0	2
Total scope 1 <sup>26</sup>			3,003	3,673	5,674	3,809	3,177
Total scope 2 (market based) <sup>27</sup>			7,188	5,337	4,943	5,732	5,090
Total scope 1 and 2 <sup>28</sup>			10,190	9,011	10,617	9,542	8,267

<sup>18</sup>Updates to past RIIO-T2 data as we have switched to using supplier specific and residual mix emissions factors from grid averages. This is in line with market-based accounting.

<sup>19</sup>Updates to past RIIO-T2 and base year data to account for the addition of HVDC sites, DNO portion of electricity and supplier-specific emissions factors.

<sup>20</sup>Operational transport only covers emissions from road vehicles. We do not have any Scope 1 GHG emissions from sea or air transport. Fuel combustion emissions from natural gas are listed under Buildings Natural Gas.

<sup>21</sup>Updates to base year data to correct errors in historical source data.

<sup>22</sup>Updates to past RIIO-T2 and base year data due to reclassification of vehicle types.

<sup>23</sup>Updates to past RIIO-T2 data due to reclassification of vehicle types.

<sup>24</sup>Updates to past RIIO-T2 and base year data to account for new Global Warming Potential as per license condition.

<sup>25</sup>New category for 2024/25 financial year. HVO has been separated out from generator diesel as per recommendation from Planet Mark.

<sup>26,27,28</sup>Updates to past RIIO-T2 and base year data due to methodological changes to individual categories. See other table footnotes for specific updates.

## Scope 3 Emissions

In line with our commitment to ongoing improvement in Scope 3 emissions reporting, we have continued using the methodological improvements that we implemented last year. These improvements were made following recommendations from our 2022/23 Planet Mark ISO14064-1 verification process and focused on our capital goods and purchased goods and services calculation methodologies. We have split out purchased goods and services and capital goods and have applied Department for Environment, Food and Rural Affairs (DEFRA)-published emissions factors to convert our spend into GHG emissions. These emissions factors include GHGs emitted by our supply chain outside the UK and are therefore a better measure of our consumption-based footprint. We have restated our historical figures after removing the inflation adjustments we had previously applied to the DEFRA emission factors to align with SSE Group reporting practices.

GHG protocol category emissions in tCO <sub>2</sub> e	Specific area	2018/19 baseline	2021/22	2022/23	2023/24	2024/25
Purchased goods and services	Water supply	0.9	0.1	0.3	0.5	0.5
	Purchased goods and services <sup>29</sup>	2,549	6,086	7,681	8,396	13,894
Capital goods	Capital goods	111,367	161,752	159,251	238,232	458,825
	SF <sub>6</sub> leaks construction <sup>30</sup>	No data	No data	No data	788	131
Fuel and energy related activity <sup>31</sup>	Transmission and distribution losses for grid electricity	71	37	59	89	79
	Well-to-tank emissions	7,663	7,365	8,456	5,468	4,781
Use of sold products	Transmission losses from our network	43,179	30,864	42,441	21,246	18,616
Upstream transportation and distribution	Included in purchased goods and services or capital goods	n/a	n/a	n/a	n/a	n/a
Waste generated in operations	Wastewater treatment	2	0	1	1	1
	Standard commercial waste from non-operational buildings	2	2	3	2	1
	Decommissioning and disposal of network assets	No data	No data	No data	No data	No data
Business Travel	Private vehicles <sup>32</sup>	166	159	243	451	416
	Rail	17	6	27	50	77
	Air	149	126	313	640	740
	Ferry	2	2	5	5	2
	Hotel stays	No data	No data	184	289	359
Employee commuting	Commuting and home working emissions	No data	No data	No data	No data	No data
Leased assets	n/a as we do not differentiate between leased and owned assets	n/a	n/a	n/a	n/a	n/a

<sup>29</sup>Updates to past RIIO-T2 and base year data due to change in methodology to align with SSE Group reporting.

<sup>30</sup>Updates to past RIIO-T2 and base year data to align with new global warming potential as per license condition.

<sup>31</sup>Updates to past RIIO-T2 and base year data to reflect calculation change due to updated substation consumption.

<sup>32</sup>Updates to past RIIO-T2 data to account for reclassification of vehicle types.



## Embodied carbon by project<sup>33</sup>

Project	Embodied carbon emissions (tCO <sub>2</sub> e)	Normalised emissions (tCO <sub>2</sub> e/£M)	Key sources of embodied carbon
Shetland HVDC - Development of a high-voltage direct current (HVDC) link to connect Shetland	68,595	147	Construction emissions, HVDC cable (27.2 km), transformers (19)
Tummel Bridge Substation Upgrade - Upgrade of the Tummel Bridge substation with new transformers and infrastructure	7,011	130	Construction emissions, supergrid transformers (2), steel towers (2)
Thurso South Synchronous Compensator - Deployment of a synchronous compensator at Thurso South	354	123	Construction emissions, feeder bay (1), concrete foundations
Zenobe Battery Connection Blackhillock - Connection to large-scale battery energy storage system	345	99	Construction emissions, disconnector (6), busbar (404m)
Moray West Offshore - Blackhillock - Grid connection infrastructure to integrate the Moray West Offshore Wind Farm via Blackhillock substation.	376	69	Construction emissions, circuit breaker (2)
Rothienorman Synchronous Compensator - Installation of a synchronous compensator at Rothienorman	131	84	Construction emissions, concrete foundations, disconnector (1)

<sup>33</sup>SEEN transmission approach to Embodied Carbon Reporting has evolved through RIIO-T2. At the time when these projects were at Final Design Stage, no process for calculating Embodied Carbon had been implemented, so it was not possible to report embodied carbon prior to project completion.

## Transmission losses

Metric	Unit	2018/19 base year	RIIO-T2 Period			
			2021/ 22	2022/ 23	2023/ 24	2024/ 25
Annual losses	TWh	0.348	0.417	0.564	0.476	0.484
Share of total electricity	%	1.98	2.33	2.75	2.78	2.47
GHG emissions from transmission losses	tCO <sub>2</sub> e	43,119	30,864	42,441	21,246	18,616
Transmission network GHG emission intensity	kgCO <sub>2</sub> e/ kWh	0.124	0.074	0.075	0.045	0.038
Decrease in GHG emission intensity from base year	%	n/a	40.3%	39.5%	63.7%	69.4%

## Regional Fund awards

Project	Funds awarded	Purpose
<b>UHI Inverness</b>	£352,000	Establish a Sustainable Construction Centre, addressing skills shortages and supporting the region's transition to net-zero
<b>North East Scotland College</b>	£150,000	Essential equipment in Aberdeen's new Energy Transition Skills Hub
<b>Growing2gether</b>	£55,591	Support vulnerable and at-risk young people through mentoring and youth-led social action
<b>Kyle &amp; Lochalsh Community Trust</b>	£361,989	Construct a heritage centre serving as a learning hub and museum
<b>Regional Screen Scotland</b>	£350,000	Mobile cinema initiative to bring film experiences to over 40 remote communities
<b>Fèis Rois</b>	£181,638	Promote traditional music and Gaelic language activities
<b>UHI North, West and Hebrides</b>	£110,000	Innovative project creating digital, place-based heritage experiences
<b>Orkney Construction Training Group</b>	£75,471	Modular manufacturing housing toolkit and two demonstrator modules
<b>Thaw Orkney</b>	£295,322	Development of a flexible whole-house retrofit pathway
<b>North East Scotland Retrofit Hub</b>	£88,000	Strengthen retrofitting capacity in the North East of Scotland by training construction professionals



## Operational Waste

Descriptor	Unit	Category	2021/2022	2022/2023	2023/2024	2024/2025
Total waste generated	Tonnes	n/a	38.99	139.4	92.43	162.48
Final destination of waste	% / destination	Recycled	No data	No data	48.70	66.50
		Reused	No data	No data	No data	0
		Recovered - Anaerobic Digestion / Composted	No data	No data	2.30	0.03
		Recovered - Energy from waste	No data	No data	48.90	33.27
		Landfill	No data	No data	0	0.20
		Treated waste	No data	No data	0.10	0
Diversion from landfill	%	n/a	No data	No data	99.9	99.80

## Operational Waste by source and destination (tonnes)

Material	Recycled	Recovery	Landfill
Plastics	0.00	0.05	0.00
Hazardous	0.00	0.20	0.00
Food Waste	0.02	0.10	0.00
Recycling	0.18	0.00	0.00
Line trap - Drained	0.31	0.00	0.00
General	1.31	48.41	0.32
Cardboard	1.96	0.00	0.00
Construction and Demolition (C&D)	5.77	0.00	0.00
Mixed Recycling	8.45	1.03	0.00
Paper/Cardboard	11.20	0.06	0.00
Wood	12.04	4.25	0.00
Metals	66.82	0.00	0.00

*Project waste by source and destination (tonnes)*

Waste by source	Recycled	Re-use	Recovery	Landfill	Other disposal	TOTAL
Hazardous	1.1	0.0	8.6	0.0	0.0	9.7
Electrical and Electronic Equipment	4.1	1.6	0.0	0.0	0.0	5.6
Paper/Cardboard	14.3	0.0	0.2	0.0	0.0	14.5
Residual Waste	233.0	11.1	1396.9	45.4	0.0	1686.4
Mixed Recyclables	284.7	0.0	0.0	0.0	0.0	284.7
Plastics	289.9	0.0	1.2	4.0	0.0	295.0
Wood	1995.1	13.9	117.1	10.7	4.1	2140.8
Metals	2100.4	5.4	0.0	0.0	0.0	2105.8
Construction and Demolition	28149.1	9218.0	2366.1	46.1	14.2	39793.5
TOTAL	33071.5	9250.0	3890.0	106.1	18.3	46335.9

## Appendix 3: Scope 3 Methodology

Category	Methodology and assumptions	Data source	Confidence in data (completeness and accuracy): RAG Rating	Improvement actions
Purchased Goods and Services	Purchased goods and services cover cradle-to-gate emissions from any goods or services purchased in the course of normal business operations. We have continued using the methodological improvements that we implemented last year following recommendations from our 2022/23 Planet Mark ISO14064-1 verification process. We have split out purchased goods and services and capital goods and have applied DEFRA-published emissions factors. These new emissions factors account for carbon emitted outside the UK and are therefore a better measure of our consumption-based footprint. These changes enabled us to calculate our emissions more accurately. Exceptions include water consumption for which accurate data and emissions factors are available. We therefore report emissions related to our water supply separately and exclude them from the spend-based calculation.	<ul style="list-style-type: none"> <li>Annual transmission spend data by procurement category</li> <li>Spend-based emissions factors published by DEFRA</li> <li>Metered water consumption data from non-operational buildings (offices, depots, and warehouses)</li> <li>Department for Business, Energy &amp; Industrial Strategy (BEIS) Greenhouse Gas Conversion Factors 2024 – Water supply</li> </ul>	Medium	We have implemented all recommendations made by Planet Mark during the 2022/23 verification process and now have robust and comprehensive spend-based emissions reporting for purchased goods and services. Given the very diverse nature of our purchased goods and services, further improvement will be difficult (in contrast to capital goods, see below).
Capital Goods	Capital goods cover emissions from PAS 2080 lifecycle stages A1 to A5 (raw material extraction, transport to manufacturing sites, manufacturing processes, transport to construction site and construction site emissions) for all of our network upgrades and expansion projects. We have continued to split out Capital Goods from Purchased Goods and Services on the basis of their categorisation as either operational or capital expenditure. We use the same improved spend-based methodology for both categories in 2024/25 except for both categories we no longer apply inflation adjustments to the spend emission factors.	<ul style="list-style-type: none"> <li>Annual transmission spend data by procurement category</li> <li>Spend-based emissions factors published by DEFRA</li> </ul>	Medium	We have robust and comprehensive spend-based emissions reporting for capital goods. Further improvements will have to come from using project information to assess quantities of assets installed and materials used to develop bottom-up calculations of Scope 3 emissions.



Category	Methodology and assumptions	Data source	Confidence in data (completeness and accuracy): RAG Rating	Improvement actions
Fuel and Energy Related Activity	<p>This category covers fuel- and energy-related emissions that are not included in Scope 1 or Scope 2.</p> <p>Transmission &amp; Distribution Losses (T&amp;D)</p> <p>This accounts for the electricity lost between the point of generation and the point at which we consume the electricity in one of our non-operational buildings (offices, depots and warehouses) or to charge company-owned EVs. This category is common to all users of grid electricity and should not be confused with "Transmission losses", which are unique to transmission network operators.</p> <p>Well-to-Tank Emissions</p> <p>This accounts for the extraction, production and transportation of the fuels (natural gas, petrol, diesel) consumed by SSEN Transmission. It also accounts for the extraction, production and transportation of fuels to produce the electricity and provide the transport used by SSEN Transmission. This category is linked to a range of other categories across our emissions inventory and changes are driven by multiple factors.</p>	<p><b>T&amp;D Losses</b></p> <ul style="list-style-type: none"> <li>Metered electricity consumption data from non-operational buildings (offices, depots and warehouses).</li> <li>Metered electricity consumption data from substations running on DNO supply</li> <li>BEIS GHG Conversion Factors 2024 – T&amp;D – UK electricity, UK electricity T&amp;D for EVs</li> </ul> <p><b>Well-to-Tank Emissions</b></p> <ul style="list-style-type: none"> <li>Fuel and electricity consumption data</li> <li>BEIS GHG Conversion Factors 2024 – multiple factors depending on fuel type</li> </ul>	High	No further improvement is planned in these categories.
Upstream Transportation and Distribution	<p>Transportation and distribution of goods through third-party suppliers is not a major part of SSEN Transmission's operations. We mainly either transport goods ourselves, emissions from which are counted under Transport in Scope 1, or where third parties are involved, we would account for the emissions under the first two Scope 3 categories: Purchased goods and services and Capital good</p>	N/A	N/A	N/A



Category	Methodology and assumptions	Data source	Confidence in data (completeness and accuracy): RAG Rating	Improvement actions
Waste Generated in Operations	<p>This section accounts for third-party disposal and treatment of waste and wastewater. For SSEN Transmission, this would cover emissions associated with standard commercial waste and wastewater from non-operational buildings as well as decommissioning and disposal of obsolete network assets. The latter would form the majority of SSEN Transmission's waste-related emissions, however the data requirements to accurately calculate GHG emissions from this are complex. We will develop our internal systems to report on this over the course of RIIO-T2.</p> <p><b>Standard Commercial Waste</b> This category includes emissions associated with standard commercial waste from non-operational buildings (offices warehouses and depots). We have implemented a new waste-type-specific methodology to calculate these emissions. These buildings are generally shared with staff from other SSE business units therefore the proportion of standard commercial waste attributable to SSEN Transmission is based on the percentage of the site's floor space occupied by SSEN Transmission staff.</p> <p><b>Wastewater Treatment</b></p> <p>We have calculated emissions for wastewater treatment from all of SSEN Transmission's non-operational buildings (offices, depots, and warehouses). These buildings are generally shared with staff from other SSE business units. The proportion of wastewater for a building attributable to SSEN Transmission is based on the percentage of the site's floor space occupied by SSEN Transmission staff.</p>	<p><b>Standard Commercial Waste</b></p> <ul style="list-style-type: none"> <li>Waste data categorised by building, waste type (i.e. metal, wood) and treatment method (i.e. recycled, composted).</li> <li>BEIS GHG Conversion Factors 2024 - Waste disposal</li> </ul> <p><b>Standard Commercial Waste</b></p> <ul style="list-style-type: none"> <li>Waste data categorised by building, waste type (i.e. metal, wood) and treatment method (i.e. recycled, composted).</li> <li>BEIS GHG Conversion Factors 2024 - Waste disposal</li> </ul> <p><b>Wastewater Treatment</b></p> <ul style="list-style-type: none"> <li>Metered water consumption data from SSEN Transmission's non-operational buildings (offices, depots, and warehouses)</li> <li>BEIS GHG Conversion Factors 2024 - Water treatment</li> </ul>	Medium	Over the remainder of the RIIO-T2, we will continue to improve the accuracy of our commercial waste data from non-operational buildings. The decommissioning and disposal of obsolete network assets is typically carried out by contractors as part of our capital projects and therefore emissions are currently reported under capital goods.
Business Travel	Business travel covers emissions from staff travel via vehicles over which SSEN Transmission does not have direct operational control. This includes private road vehicles (when used for business travel purposes) and travel via rail, air or ferry services. We also include hotel stays in this category. Note that this excludes mileage undertaken in company-owned or leased vehicles which is already counted under Scope 1 – Transport – Business mileage	<ul style="list-style-type: none"> <li>Employee mileage and travel claim data (with transport modes)</li> <li>Data covering the number of hotel rooms per night occupied by employees</li> <li>BEIS GHG Conversion Factors 2024 – multiple factors depending on travel type and location of hotel stay</li> </ul>	High	No further improvement is planned in these categories.
Employee Commuting	Employee commuting covers emissions from staff travel to and from their work locations. We have not reported on these emissions in year 4 of RIIO-T2.	TBD	TBD	By the end of RIIO-T2, we will develop systems to collect the relevant activity data and seek to identify accurate emissions factors that would allow us to account for our employees' differing commuting profiles.



Category	Methodology and assumptions	Data source	Confidence in data (completeness and accuracy): RAG Rating	Improvement actions
Leased Assets	This category covers emissions from leased assets where these are not already covered under Scope 1 or Scope 2 categories. We use an operational control approach to GHG accounting therefore, all assets we operate, regardless of ownership, are part of Scope 1 and 2 reporting.	N/A	N/A	N/A
Use of Sold Products	<p>Transmission Losses</p> <p>These are the emissions attributable to the energy lost through dissipation between the point at which electricity enters our transmission network and the point at which it leaves our network. The amount of electricity lost in this way is calculated annually by the electricity system operator. The carbon intensity of this electricity is calculated by SSEN Transmission based on the total generation on our network and the carbon intensity of each carbon emitting generation source. Note that substation electricity use is counted as a Scope 2 emission and is subtracted from the overall losses figure provided by the electricity system operator to avoid double-counting.</p>	<p><b>Transmission Losses</b></p> <ul style="list-style-type: none"> <li>ESO transmission losses value for SSEN Transmission network 2024/25</li> <li>SSEN Transmission network carbon intensity value (kgCO2e/ kWh) – calculated from total generation on our network and its carbon intensity.</li> <li>BEIS GHG Conversion Factors 2024.</li> </ul>	High	No further improvement is planned in these categories.





## Embodied Carbon Methodology

Embodied carbon was assessed for six projects. Projects were selected for inclusion based on the following criteria:

- RIIO-T2 Projects
- Projects energised in 2024/25.

The following emissions were included in the assessment (as defined by [BS EN 15978:2011](#)):

- **A1–A3 (Product Stage):** Emissions from raw material extraction, transport to manufacturing, and product manufacturing.
- **A4 (Transport to Site):** Emissions from transporting construction materials and products to the building site.
- **A5 (Construction/Installation):** Emissions from on-site construction activities, including machinery use, waste, and temporary works.

The embodied carbon assessment was based on 'as built' information where possible. The accuracy of the assessment has been qualitatively assessed based on the 'Volumetric Data', 'Input Detail' and 'Emissions Factor' detailed below.

### Volumetric Data

Volumetric Data represents the volume or quantity of material / product installed on site. This could be units of transformers, cubic meters of concrete poured, tonnes of aggregate imported, etc.

Where possible, as built information was taken from Regulatory Reporting Tables to maintain consistency with other reports.

Where 'as built' information was not available, volumes of materials / products used were estimated from 'as built' volumes. For example, where the area of a road was known but the actual quantities of material used in the road were unknown, reasonable assumptions were made to convert area into suitable volumetric data.

### Modelling Detail

The accuracy of embodied carbon modelling depends heavily on the level of detail available. Greater detail enables more precise estimates—for instance, knowing the specific type and source of concrete used in a project significantly improves accuracy. However, such detailed information was not always accessible for this assessment. In these cases, conservative assumptions were applied regarding material types and quantities; for example, CEM I concrete was assumed where no specific data was provided.



## Quality of Emissions Factors

The accuracy of embodied carbon modelling is dependent on the emissions factors available. In general, emissions factors from verified environmental product declarations or directly from suppliers represent the best quality emissions factor. Where these are not available, product specific emissions factors can be used from recognised industry sources.

### A1–A3 (Product Stage)

*Product (Unit) x Emissions Factor (tCO<sub>2</sub>e/Unit) = Product Stage Emissions (tCO<sub>2</sub>e)*

Product emissions include the manufacture or production of materials and products used on site. This is related to the amount of product or material (measured in a suitable unit) and the emissions factor of the product or material (the carbon intensity associated with the manufacture or production of a unit of the product / material).

Volumetric Data of assets such as transformers, circuit breakers, surge arrestors etc. were based on 'as built' volumes.

Modelling Detail for assets were generally based on default asset type (e.g. 132kV Gas Insulated Circuit Breaker) rather than specific makes or models.

Volumetric Data for civil works were estimated from assumptions using data from previous studies rather than using 'as built' volumes. This was due to a lack of reliable data.

Modelling Detail for assets where civil works were generally poor – as there was limited information available for concrete type or road type. Generally, modelling detail was developed using reasonable assumptions.

Emissions were calculated in SSEN Transmission's Project Carbon Calculator. Industry emissions factors were used from industry recognised carbon databases such as the UK Transmissions Operator Carbon Asset Database or from other sources such as DEFRA.

For HVDC, bespoke emissions factors were developed through independent research, due to the limited availability of existing data.

Category	Volume input data	Detail for modelling	Quality of emissions factors
Assets	<b>Good</b> 'As built' - Actual volumes	<b>Fair</b> Categorised by type and voltage	<b>Fair</b> Product Specific Emissions Factor
Civils	<b>Fair</b> Calculated from 'as built' volumes	<b>Poor</b> No data on CEM types or aggregate types – reasonable estimates used	<b>Fair</b> Product Specific Emissions Factor

## A4 (Transport to Site)

$$\sum \text{Weight (t)} \times \text{Distance (km)} \times \text{Transport Specific Emission Factor (tCO}_2\text{e/t.km)} = \text{Construction/Installation Emissions (tCO}_2\text{e)}$$

Transport emissions represent the total emissions from all transport modes used to deliver materials or products to site, and are determined by the distance travelled, the weight of the goods, and the type of vehicle used (e.g. train, van, car).

For each product or material, assumptions were made for transport distances and vehicle types.

Category	Volume input data	Details for modelling	Quality of emissions factors
Assets	<b>Fair</b> Estimation of weight by asset	<b>Fair</b> Industry assumptions for transport types and distances used	<b>Good</b> Consistent with Department for Business, Energy & Industrial Strategy (BEIS) conversion factors
Civils	<b>Fair</b> Estimation of weight by material	<b>Fair</b> Industry assumptions for transport types and distances used	<b>Good</b> Consistent with Department for Business, Energy & Industrial Strategy (BEIS) conversion factors

## A5 (Construction/Installation)

$$\text{Project Cost (£)} \times \text{Economic Intensity (tCO}_2\text{e/£)} = \text{Construction/Installation Emissions (tCO}_2\text{e)}$$

Although our supply chain reports 'as-built' construction emissions, this reporting is relatively new. A recent review of this data identified inconsistencies and inaccuracies in the data, rendering it unsuitable for use. In the absence of reliable actual data, construction emissions were instead estimated using total project spend.

An emissions factor of 50tCO<sub>2</sub>e/£m spend was used, in line with [RICS guidance](#) on Whole Life Carbon Assessment for the Built Environment

Category	Volume input data	Details for modelling	Quality of emissions factors
Construction Emissions	<b>Very Poor</b> Project Cost	<b>Very Poor</b> No data	<b>Very Poor</b> Economic Intensity



## Appendix 4: Eastern Green Link 2 Sustainability Data

SSEN Transmission and National Grid Electricity Transmission (NGET) have formed an integrated joint venture (IJV) to deliver the Eastern Green Link 2 (ELG2) project. The following sustainability information is reported by both SSEN Transmission and NGET as per agreement with Ofgem.

### Carbon Emissions

#### Carbon

Project	Scope 3 Category (tCO <sub>2</sub> e)	FY24/25		
	<b>Fair</b> Estimation of weight by asset	NGET	SSEN Transmission	Total
EGL2	Purchased goods and services, Capital Goods	52,841	68,250	121,091

There are no Scope 1 or 2 carbon emissions associated with the EGL2 IJV. All business emissions are related to staff employed and buildings owned or leased SSEN Transmission or NGET. As such, Scope 1 and 2 emissions are reported by each TO in line with Ofgem AER guidance and are subject to each TO's emissions reductions targets (see the Climate section of this report for more details).

As this is the first year of EGL2 operations, there is no net change in Scope 3 emissions for 2024/25.

EGL2 Scope 3 carbon data is based on supply chain spend and emissions factors for different materials. Emissions have been proportioned to each TO based on spend. The methodology and figure is consistent with SSEN Transmission's overall Scope 3 Category 1 and 2 figures for 2024/25, which have been externally verified to ISO14064 by Planet Mark.

### Biodiversity

EGL2 has a commitment to a minimum of 10% Biodiversity Net Gain (BNG). We monitor progress against this commitment as part of our monthly contractor meetings and will continue to monitor and report on BNG for the remainder of this project.

### Additional Sustainability Data

The waste, fuel, and environmental incident data reported below covers the entire EGL 2 project, with no proportional split between SSEN Transmission and NGET, as agreed with Ofgem.

This year, EGL2 sent only 4.2% of waste to landfill. We are therefore achieving our target of less than 20% to landfill.

#### EGL2 Waste Figures

EGL2		
Waste generation (tonnes)	FY25 (tonnes)	FY25 (%)
Landfill	16.5	4.2
Closed Loop Recycled	0	0.0
Open Loop Recycling	77.8	19.7
Combustion	1.2	0.3
Anaerobic Digestion	299	75.8
Reuse	0	0.0
Total	394.5	100

## EGL2 Fuel Figures

EGL2		
Fuel type	FY25 (litres)	FY25 (%)
Diesel	14,500	4.9
Marine Diesel	0	0
HVO	267,307	90.9
Petrol	12,364	4.2
TOTAL	294,171	100

This year, we had no major environmental incidents.

## EGL2 Environmental Compliance

Incident Type (Major)	Number of incidents	Description
N/A	0	N/A





## Appendix 5: Data

### Reporting scope and boundaries

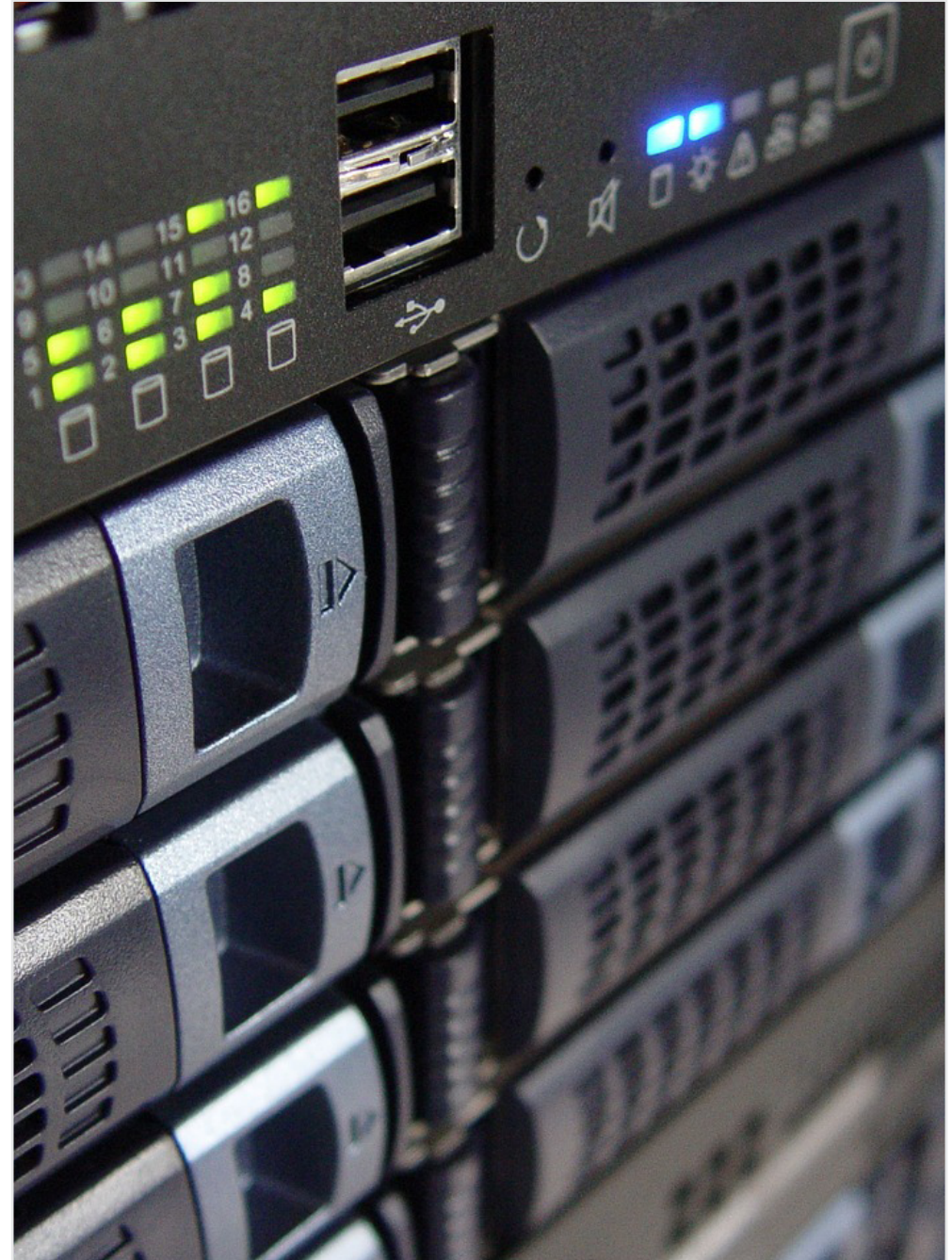
While we have previously reported on many areas of sustainability in this report, there are new areas of reporting that have emerged for RIIO-T2 and will evolve over time. We are committed to expanding the scope and boundaries of our reporting to encompass relevant aspects.

Our ambition is to identify the most pertinent and significant scope for each area, considering its material impact. We are dedicated to reporting 100% of the material scope. To enhance our data reporting, we have established improvement plans and we will provide annual updates on our efforts within our Annual Sustainability Report.

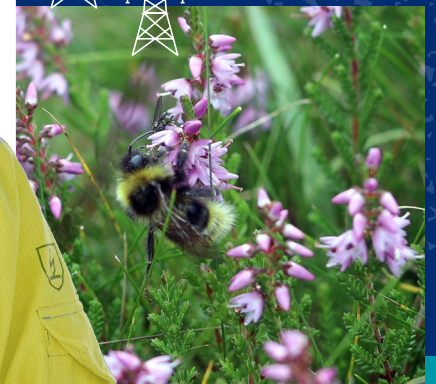
### Assurance

All data presented in this report adheres to the Data Assurance Requirements Standard Licence Condition B23. A Risk Assessment was conducted, and the Total Risk Rating was Low. The appropriate level of assurance activities has been employed commensurate with the risk rating including a submission plan, methodology and appropriate level of review and sign off. However, to ensure the accuracy and reliability of this report, we have conducted additional assurance activities, including a Director-level review and sign-off.

Our GHG emissions continue to be a significant impact for our business. As in the previous reporting period, we have subjected our entire business carbon footprint (Scope 1, 2 and 3) to independent verification according to the ISO14064-1 standard. This was undertaken by Planet Mark. For their verification statement, please visit our website: [Planet Mark Verification report](#).







[www.ssen-transmission.co.uk](http://www.ssen-transmission.co.uk)

